S/M No. :

Service Manual

Washing Machine

Model: DWF-900S

✔ Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service Information Center (http://svc.dwe.co.kr).

DAEWOO ELECTRONICS CORP.

http : //svc.dwe.co.kr Aug. 2013

AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER
AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER AUTO WASHER

Contents

WASHING MACHINE

1. SPECIFICATIONS 2
2. STRUCTURE OF THE WASHING MACHINE 3
3. FUNCTIONS OF THE CONTROL PANEL 4
4. WASHING PROCEDURE AND PROGRAM SELECTION
FULL AUTOMATIC PROGRAM 5
RESERVED WASHING 7
PARTIAL PROCESS & COMBINATION 7
5. DIRECTIONS FOR INSTALLATION AND USE
LOCATION OF WASHER 8
DRAIN SYSTEM 8
HOW TO CONNECT THE INLET HOSE 9
HOW TO CLEAN THE FILTER 10
6. FEATURE AND TECHNICAL EXPLANATION
FEATURE OF THE WASHING MACHINE 11
WATER CURRENT TO ADJUST THE UNBALANCED LOAD 11
AUTOMATIC WATER SUPPLY SYSTEM 11
AUTOMATIC DRAINING TIME ADJUSTMENT 12
SOFTENER DISPENSER 13
AUTOMATIC UNBALANCE ADJUSTMENT 14
CIRCULATING-WATER 14
LINT FILTER 15
RESIDUAL TIME DISPLAY 15
DRAIN MOTOR 15
GEAR MECHANISM ASS'Y 16
PRINCIPLE OF BUBBLE GENERATOR 16
FUNCTIONAL PRINCIPLE OF BUBBLE WASHING MACHINE 17
7. DIRECTIONS FOR DISASSEMBLY AND ADJUSTMENT
GEAR MECHANISM ASS'Y REPLACEMENT 18
MOTOR SYNCHRONOUS AND VALVE REPLACEMENT 20
BRAKE ADJUSTMENT 20
8. THE REPAIR METHOD OF GEAR MECHANISM FOR CLUTCH SPRING PROBLEM
THE STRUCTURE OF GEAR MECHANISM 21
HOW TO CHECK THE CLUTCH SPRING PROBLEM 22
THE PROCESS OF DISASSEMBLE 23
THE PROCESS OF ASSEMBLE 25
9. TROUBLE SHOOTING GUIDE
CONCERNING WATER SUPPLY 27
CONCERNING WASHING 28
CONCERNING DRAINING 29
CONCERNING SPINNING 30
CONCERNING OPERATION 31
10. PRESENTATION OF THE P.C.B ASS'Y 32

APPENDIX
WIRING DIAGRAM 33
PARTS DIAGRAM & PARTS LIST 35
CIRCUIT DIAGRAM 44

1. SPECIFICATIONS

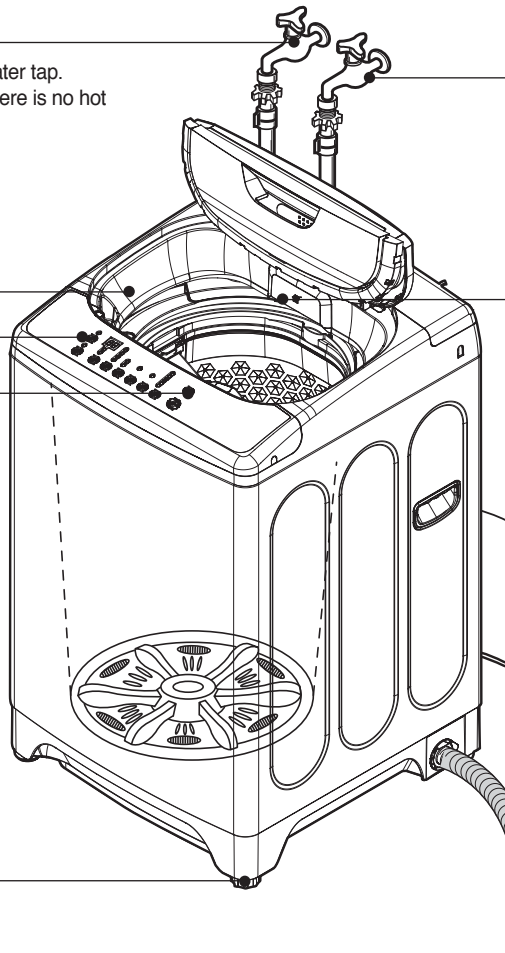
NO.	ITEM		DWF-8100
1	POWER SOURCE		AVAILABLE IN ALL LOCAL VOLTAGE
2	POWER CONSUMPTION	50Hz	320W
		60Hz	300W(110~127V)/340W(220V)
3	MACHINE WEIGHT	NET	28Kg/28.5Kg(pump)
		GROSS	31.5Kg/32Kg(pump)
4	DIMENSION(WXHXD)		560 X 948.5 X 570
5	MATERIAL OF INTERNAL TUB		STAINLESS STEEL
6	WASHING PROGRAM		FULL AUTOMATIC 6 PROGRAMS (FUZZY, DELICATE, ECONOMY, BLANKET, BABY CARE, SPORTS WEAR)
7	WATER LEVEL SELECTOR		HIGH(55L), MID(45L), LOW(31L)
8	OPERATING WATER PRESSURE		0.3ß∏f/ß≤ ~ 8ß∏f/ß≤ (2.94N/ß≤ ~ 78.4 N/ß≤)
9	MAXIMUM MASS OF TEXTILE		6.0Kg
10	REVOLUTION PER MINUTE	WASH	125~145(50Hz), 130~150(60Hz)
		SPIN	710~725(50Hz), 760~785(60Hz)
		SUIT	50(50Hz), 60(60Hz)
11	WATER CONSUMPTION		APPROX 1301/CYCLE
12	WATER LEVEL CONTROL		ELECTRONICAL SENSOR
13	ANTINOISE PLATE		OPTION
14	GAER MECHANISM ASS'Y		SPUR GEAR
15	LINT FILTER		O
16	SOFTENER INLET		O
17	ALARM SIGNAL		O
18	AUTO WATER SUPPLY		O
19	FUNCTION FOR BUBBLE		OPTION
20	AUTO RE-FEED WATER		O
21	AUTO POWER OFF		O

2. STRUCTURE OF THE WASHING MACHINE

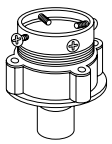
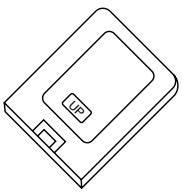
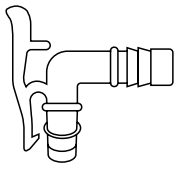
The parts and features of your washer are illustrated on this page.
Become familiar with all parts and features before using your washer.

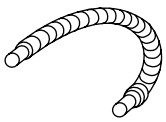
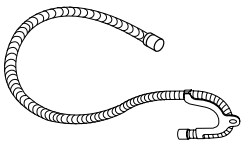
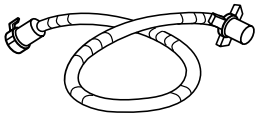
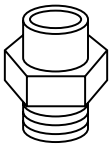
NOTE

- The drawing in this book may vary from your washer model. They are designed to show the different features of all models covered by this book, Your model may not include all features.
- Page references are included next to same features.
  Refer to those pages for more information about the features.


• HOT WATER TAP
After using the washer, close the water tap.
In case of the single valve model, there is no hot water valve.
• COLD WATER TAP
After using the washer, close the water tap.
• BLEACH INLET
• CONTROL PANEL
• POWER SWITCH
• DETERGENT CASE
• GROUND WIRE
In case of 3-wire power cord, ground wire will not be provided
• POWER CORD
• DRAIN HOSE
• ADJUSTABLE LEG

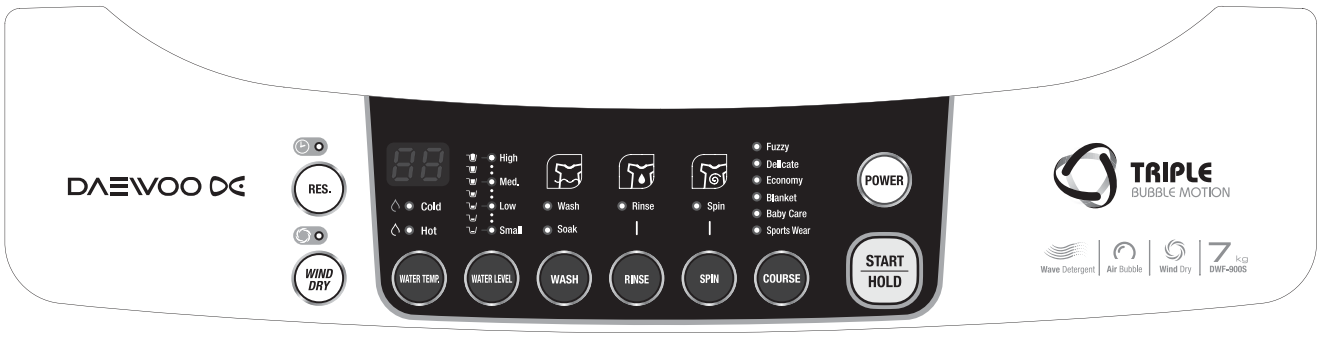
Accessories

HOSE ADAPTER	UNDER COVER(OPTION)	HOSE CONNECTOR(OPTION)
 In case of screw shaped inlet hoses water tap adapters will not be provided.		

DRAIN HOSE		INLET HOSE(OPTION)	CONNECTOR INLET(OPTION)
 NON PUMP MODEL	 PUMP MODEL		

3. FUNCTIONS OF THE CONTROL PANEL

Control panel has micom sensor.
As the buttons are pressed, the lamps indicating the selection of your desired washing program will light up.



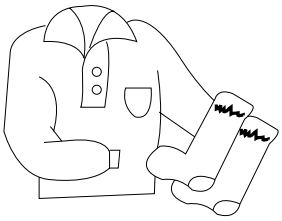
POWER	• Press this button to turn the power 'ON' or 'OFF'.
WATER TEMP.	• It can be used to choose water temperature to be suppliued. • As the button is pressed, water temperature will be repeated. COLD → COLD+HOT → HOT • In case of the single valve model, there is no wash temperature selector function.
WATER LEVEL	• It can be used to adjust amount of water according to the size of the load to be washed. • As the button is pressed, water level is selected by MID → HIGH → SMALL → LOW
RES.	• It can be used to pre-engage time for wash.
WASH RINSE SPIN	• It is the button for the partial process or the combination of each process (wash, rinse, spin) (See page 10)
COURSE SPIN	• If you want to change wash time, rinse time, spin time , you must press this button after selecing each process by the process button. Also, this button can be used to spin only. (See page 10)
COURSE	• It can be used to select the full-automatic program. • As the button is prassed, program will be selected by following order: FUZZY → FUZZY+DELICATE → ECO. → ECO.+DELICATE → BLANKET → BABY CARE → SPORTS WEAR
START HOLD	• Operation and temporary stop is repeated as it is pressed. • When you want change program in operating; press the " START/HOLD" button → select the program that you want to change → press the "START/HOLD" button again.

4. WASHING PROCEDURE AND PROGRAM SELECTION

Full Auromatic Program

1. FUZZY PROGRAM (SENSOR);

- This selection is for general washing except extraordinary clothes.
- Artificial brain sensor selects properly the various kind of washing condition such as washing time, rinse times, spin time and water level. Procedure to press the button;

1. Put in the clothes.	2. Press the power switch.	3. Press the Start/Hold button, and close the lid.
		

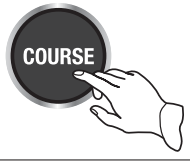
2. DELICATE PROGRAM ;

- This selection is effective for blue-jean, climbing clothes, rucksack, sports wear, etc ...
- Procedure to press the button;

1. Press the power switch.	2. Press the program selection button for "DELICATE"	3. Press the Start/Hold button, and close the lid.	4. Press the Start/Hold button, and close the lid.
	○ FUZZY ● DELICATE ○ ECONOMY ○ BLANKET ○ BABY CARE ○ SPROTS WEAR 	○ HIGH ● MID ○ LOW ○ SMALL 	

3. ECO. PROGRAM ;

- This selection is useful to reduce water consumption and washing time for less dirty clothes. Procedure to press the button;

1. Press the power switch.	2. Press the program selection button for "ECO."	3. Press the Start/Hold button, and close the lid.	4. Press the Start/Hold button, and close the lid.
	○ FUZZY ○ DELICATE ● ECONOMY ○ BLANKET ○ BABY CARE ○ SPROTS WEAR 	○ HIGH ○ MID ● LOW ○ SMALL 	

4. BLANKET PROGRAM ;

- This selection is effective for blanket or duvet.
- If you want to soak, press the program button to adjust to " Blanket ".
- Procedure to press the button;

1. Press the power switch.	2. Press the program selection button for "Blanket".	3. Select the water level proper to the wash load.	4. Press the Start/Hold button, and close the lid.
	○ FUZZY ○ DELICATE ○ ECONOMY ● BLANKET ○ BABY CARE ○ SPROTS WEAR	○ HIGH ● MID ○ LOW ○ SMALL	

5. BABY CARE PROGRAM ;

- This selection is effective for suit(wool) clothes. (1.2Kg's limitation for 1-time wash)
- Do not put leather clothes, or chamios clothes into the washing tub for washing. It may cause shringage or deforamation to the clothes.
- Please use the neutral detergents only.
- The water temperature is fixed to "COLD".
- The water level "LOW" is not selected. Procedure to press the button;

1. Press the power switch.	2. Press the program selection button for "BABY CARE".	3. Select the water level proper to the wash load.	4. Press the Start/Hold button, and close the lid.
	○ FUZZY ○ DELICATE ○ ECONOMY ○ BLANKET ● BABY CARE ○ SPROTS WEAR	○ HIGH ● MID ○ LOW ○ SMALL	

6. SPORTS WEAR PROGRAM ;

- This selection is effective for heavily soiled clothes.
- If you want to soak, press the program button to adjust to " Sports Wear" . Procedure to press the button;

1. Press the power switch.	2. Press the program selection button for "SOAK"	3. Select the water level proper to the wash load.	4. Press the Start/Hold button, and close the lid.
	○ FUZZY ○ DELICATE ○ ECONOMY ○ BLANKET ○ BABY CARE ● SPROTS WEAR	○ HIGH ● MID ○ LOW ○ SMALL	

Reserved Washing

1. FUZZY PROGRAM (SENSOR);

- Reservation can be made form 2 hours to 48 hours.
- To make reservation to complete washing in 8 hours.
  spin time and water level. Procedure to press the button;

Select the program
Adjust to water level
and water temperature

- Now the reservation is made.
- If you want to check the selected program, press the “START/HOLD” button again.

Partial Process & Combination

POWER	• Press the Power button first.
W	***WASH TIME CONTROL*** • As the control button is pressed, wash time will be repeated as 12 → 13 → 14 → … → 20 → 30 → 0 → 0min. • If you don t want wash process, you must adjust wash time to 0 min.
	RINSE TIMES CONTROL • As the control button is pressed, Rinse time will be repeated as following; 2 → 3 → 4 → 0 → 1 time(s) • If you don t want Rinse process, you must adjust Rinse times to 0 times.
	SPIN TIME CONTROL • As the control button is pressed, spin time will be repeated as following; 5 → 7 → 9 → 0 → 1 → 3min. • If you don t want spin process, you must adjust spin time to 0 min.
START HOLD	• Press the Start button.

Convenient Operation For Spin Only

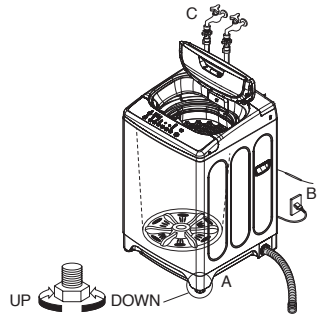
- If you want spin only, it is convinient to operate the button as following.

5. DIRECTIONS FOR INSTALLATION AND USE

Location Of Washer

Check location where washer will be installed. Make sure you have everything necessary for correct installation. Proper installation is your responsibility.

- Do not place or store your washer below 0˚C(32˚F) to avoid any damage from freezing.
- Install the washer on the horizontal sold foor.



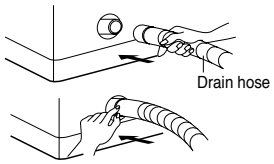
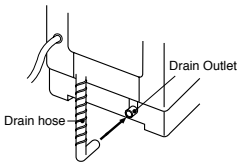
If the washer is installed on an unsuitable floor, it could make considerable noise, vibrate and cause a malfunction.
If washer is not level, adjust the front leg(A) up or down for horizontal setting.

- Earthed electrical outlet(B) is required with 20cm of bottom back of washer cabinet.
- Hot and cold water faucets (C) must be within 1M of the upper back of the washer cabinet and provide water pressure 0.3kgf/cm^2-8kgf/cm^2(2.94N/cm^2-78.4N/cm^2).

Drain System

Never forget to install drain hose before operating your washer.
The packing box is opened, there are a drain hose.

- Conect the drain hose to the drain outlet at the back side of the washer.

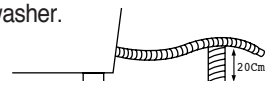
Non-Pump Model	Pump Model
	

NOTES

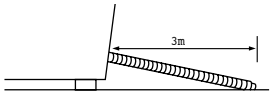
The opening must not be obstructed by carpeting when the washing machine is installed on a carpeted floor.

Non-Pump Model

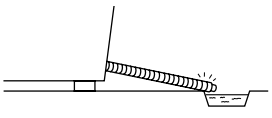
① In case that it goes over a door sill. Don't let the height of the drain hose exceed 20cm from the bottom of washer.



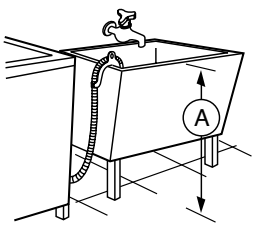
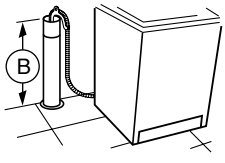
② In case of extending the drain hose. Don't let the total length exceed 3m.



③ Be careful that the end of the drain hose is not immersed in water.



Pump Model

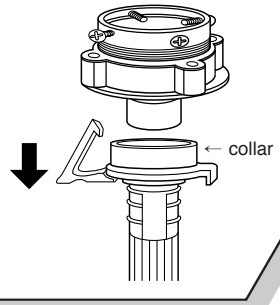
Laundry tub drain system	Standpipe drain system
• Top of tub must be at least 86cm (34inches) high and no higher than 130cm from bottom of washer (A) 	• Needs a 3cm minimum diameter standpipe with minimum carry away capacity of 30liters per minute. • Top of tub must be at least 86cm(34inches) high and no higher than 130cm from bottom of washer (B) 

How to Connect the Inlet Hose

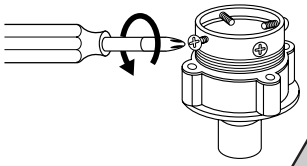
Be careful not to mistake in supplying between the hot(maximum : 50˚C) and cold water.
In using only one water tap or in case of attached one water inlet valve, connect the inlet hose to the cold water inlet valve.
Do not over tighten : this could cause damage to couplings.

• • • • FOR ORDINARY TAP

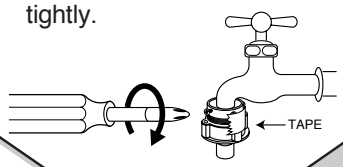
1 Pull down the collar of the inlet hose to separate it from the water tap adapter.



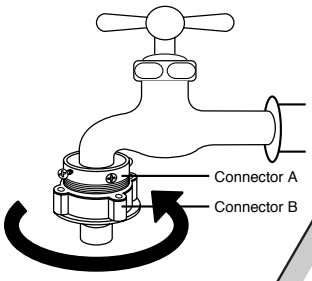
2 Loosen the four screws at the water tap adapter, but don't loosen the screws until they are separated from the water tap adapter.



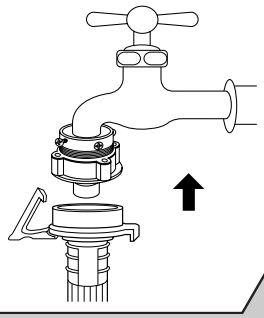
3 Connect the water tap adapter to the water tap and tighten the four screws evenly while pushing up the adapter so that the rubber packing can stick to the water tap tightly.



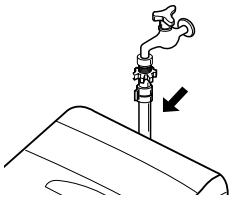
4 Remove the tape, and screw connector B into connect A tightly.



5 Connect the inlet hose to the water tap adapter by pulling down the collar of the hose end.



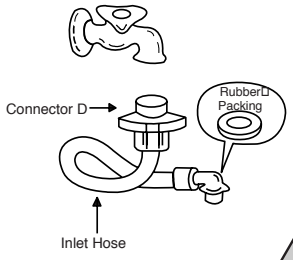
6 Connect the inlet hose adapter of the hose to the water inlet of the washer by turning it clockwise to be fixed tightly.



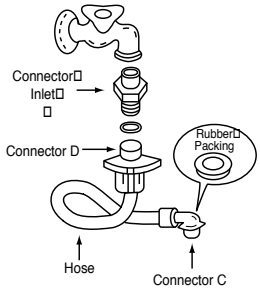
• Please check the rubber packing inside the inlet hose adapter of the hose.

• • • • FOR SCREW-SHAPED TAP

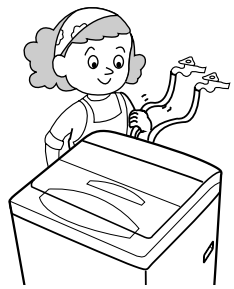
1 Connect the inlet hose to the water tap by screwing the connector D tightly.



2 Connect the connector-inlet supplied if necessary.



3 Insert the inlet hose adapter into the water inlet of washer and turn it to be fixed.

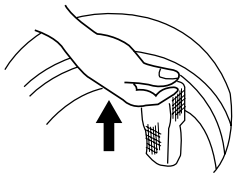


• Assert the packing in the inlet

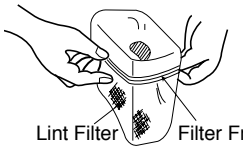
How To Clean The Filter

• • • • CLEANING THE LINT FILTER

1 Pull the Filter frame upward.



2 Turn the lint filter inside out, wash the lint off with water.



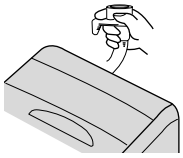
3 Return the filter as it was, and insert the filter frame into the slot.

• • • • CLEANING THE WATER INLET FILTER

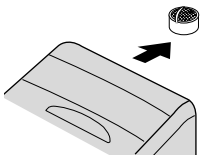
• Clean the filter when water leaks from the water inlet.

1 Pull the power plug out before cleaning it.

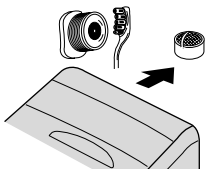
2 Turn off the water supply to the washer and separate the inlet hose.



3 Pull the inlet filter out.



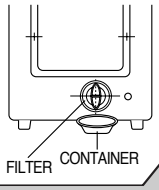
4 Remove the dirt from the inlet filter with a brush.



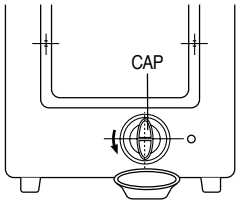
• • • • CLEANING THE DRAIN FILTER

• In case of “U” shaped drain hose, this filter’s equipped at the back side of washer.
• This drain filter is to screen the foreign stuffs such as threads, coins, pins, buttons etc ..
• If the drain filter is not cleaned at proper time (every 10 times of use), drain problem could be caused.

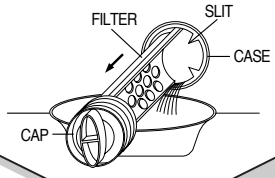
1 Put down the remained water in the hose. And put a container under the filter to collect water.



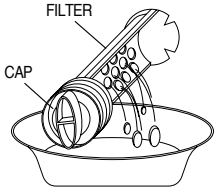
2 Turn the cap counterclockwise.



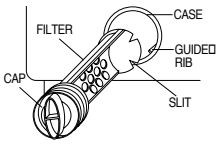
3 Pull out the filter assembly off the case of the main body.



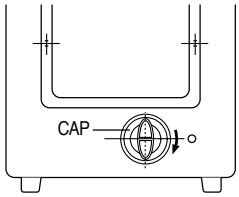
4 Clean the drain filter removing the foreign stuffs.



5 Put in the filter along the guiding prominence of the case. Please note the left position of the filter adjusting the groove to the guide rib.



6 Turn the cap clockwise tightly.



Feature of the Washing Machine

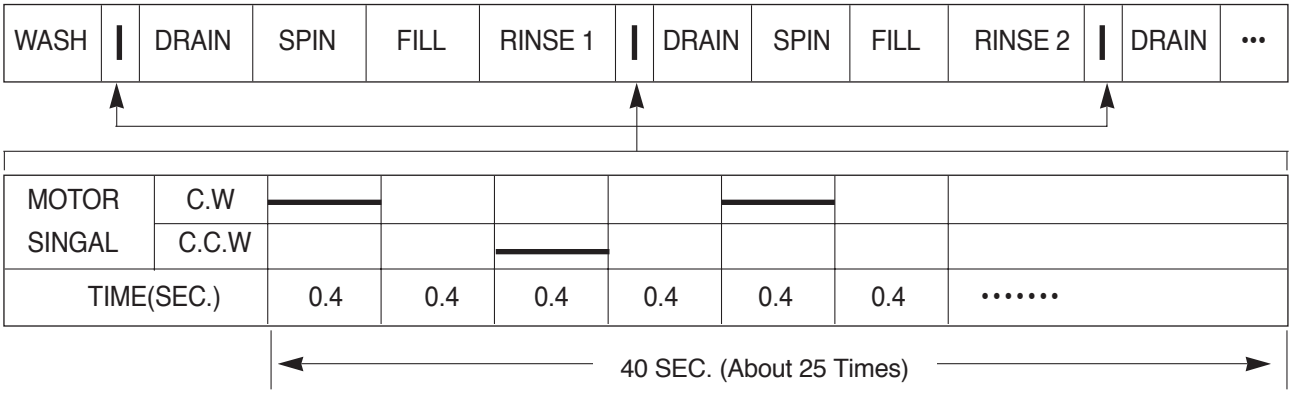
① The first air bubble washing system in the world.
② Quiet washing through the innovational low-noise design.
③ The wash effectiveness is much more enhanced because of the air bubble washing system.
④ The laundry detergent dissolves well in water because of the air bubble washing system.
⑤ The adoption of the water currents to adjust the unbalanced load.
⑥ One-touch operation system.

Water Current to Adjust the Unbalanced Load

It is a function to prevent eccentricity of the clothes after wash by rotating pulsator C.W and C.C.W for 35 seconds.(But, the SUIT course have no operation of the water currents to adjust the unbalnced load.)

EFFECT
It reduces vibration and noise effectively while spinning.

WATER FLOW



* When the water level is “HIGH”

Automatic Water Supply System

The water level would be lowered because the clothes absorbs water at the beginning of washing. Therefore, after 60 seconds, the operation is interrupted to check the water level, and then the water is supplied again until the selected water level is reached.

Automatic Drainning time Adjustment

This system adjusts the draining time automatically according to the draining condition.

Draining condition	Good draining	The washer begins spin process after drainage.
	Bad draining	Draininig time is prolonged.
	No draining	Program is stopped and gives the alarm.

FUNCTIONAL PRINCIPLE

① The micom can remember the time from the begining of drain to reset point when the pressure switch reaches to “OFF” point

Drain Time	Movement of the Program
Less than 10 minutes	Continue draining
More than 10 minutes	Program stops and gives the alarm with blinked on display lamp.

② In case of continuous draining, residual drain time is determined by micom.
Draining time as a whole = D + 40
D — Residual drain time.
40 — The time remembered by micom.

Softener Dispenser

This is the device to dispense the softener automatically by centrifugal force.
This is installed inside the auto-balancer.

FUNCTIONAL PRINCIPLE

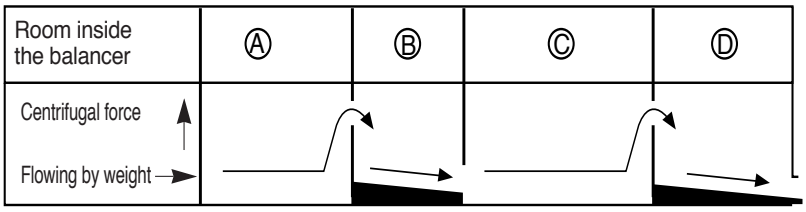
① Softener stays in room (A) when poured into softener inlet.
② Softener moves from (A) to (B) by centrifugal force during intermittent spin process.
③ Softener flows from (B) to (C) during rinse process next to intermittent spin.
④ Softener moves from (C) to (D) by centrigfugal force during second intermittent spin.

After spin process is finished, the softener is added into the tub through softener outlet.

FLOW OF THE SOFTENER

	Wash	Intermittent Spin	Hold	Intermittent Spin	Rinse	Spin
Normal	Centrifugal force		Flow in	Centrifugal force	Flow in	
Program	(A) →	(B) →	(C) →	(D) →		———

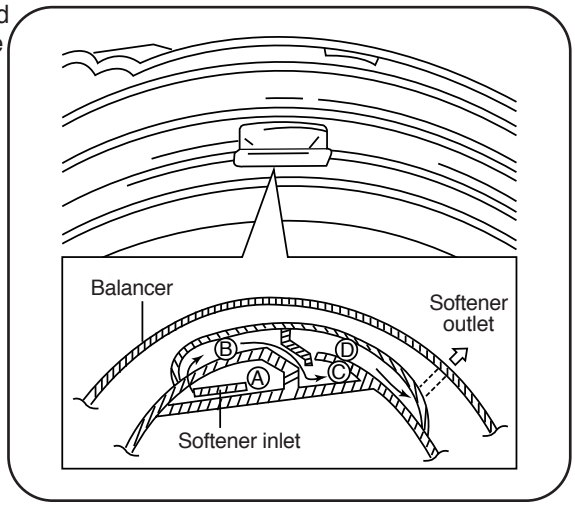
FLOW OF THE SOFTENER INSIDE OF THE BALANCER



NOTES Softener moves into the next room when r.p.m of the tub is more than 100 r.p.m.

HOW TO CHECK MOVEMENT

Pour a reasonable amount of “MILK” into softener dispenser and operate the washer with no load. In final rinse cycle, make sure that the milk is added into the tub through softener outlet.



Automatic Unbalance Adjustment

This system is to prevent abnormal vibration during intermittent spin and spin process.

FUNCTIONAL PRINCIPLE

① When the lid is closed, the safety switch contact is “ON” position.
② In case that wash loads get uneven during spin, the outer tub hits the safety switch due to the serious vibration, and the spin process is interrupted.
③ In case that P.C.B. ASS’Y gets “OFF” signal from the safety switch, spin process are stopped and rinse process is started automatically by P.C.B. ASS’Y.
④ If the safety switch is operated due to the unbalance of the tub, the program is stopped and the alarm is given.

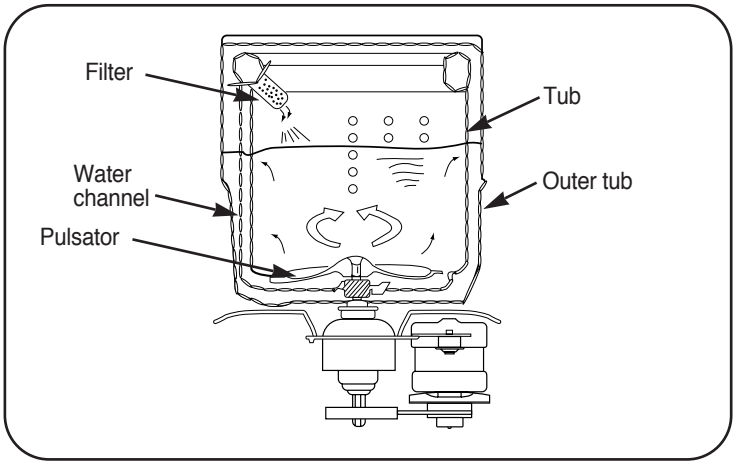
NOTES

The alarm finished when you close the lid after opening it. Check the unbalance of the wash load and the installation condition.

Circulating-Water

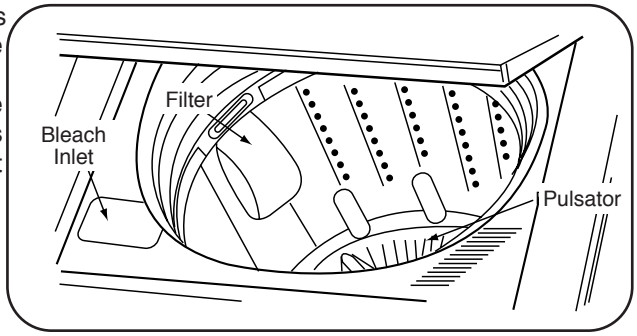
CIRCULATING-WATER

The washing and rinsing effects have been improved by adopting the water system in which water in the tub is circulated in a designed pattern.
When the pulsator rotates during the washing or rinsing process, the water below the pulsator vanes creates a water currents as shown in figure.
The water is then discharged from the upper part of the tub through the water channel. About 40 L/min. water is circulated at the ‘high’ water level, standard wash load and standard water currents.



Lint Filter

Much lint may be obtained according to the kind of clothes to be washed and some of the lint may also sticks to the clothes.
To minimize this possibility a lint filter is provided on the upper part of the tub to filter the wash water as it is discharged from the water channel. It is good to use the lint filter during washing.



HOW TO REPLACE LINT FILTER

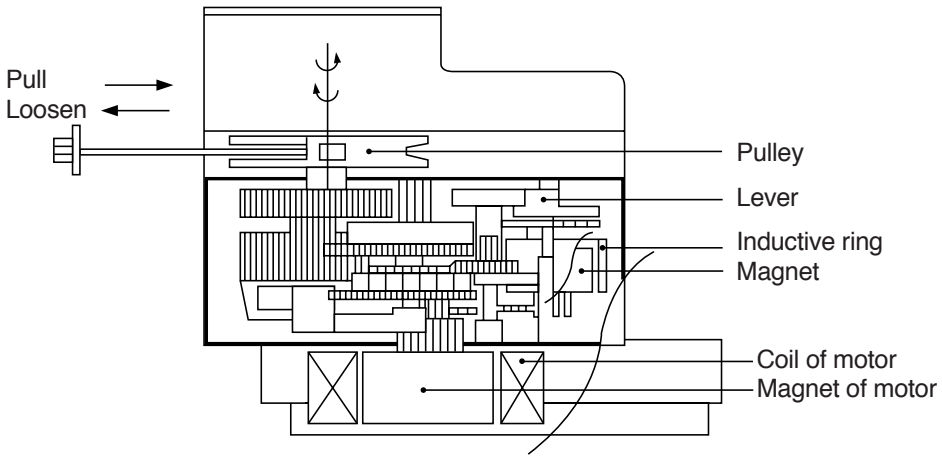
① Pull the filter frame upward.
② Turn the lint filter inside out, and wash the lint off with water.
③ Return the filter as it was, and fix the filter frame to the slot.

Residual Time Display

When the START/HOLD button is pressed, the residual time (min.) is displayed on the time indicator, and it will be counted down according to process.
When operation is finished, the TIME INDICATOR will light up .

Drain Motor

STRUCTURE

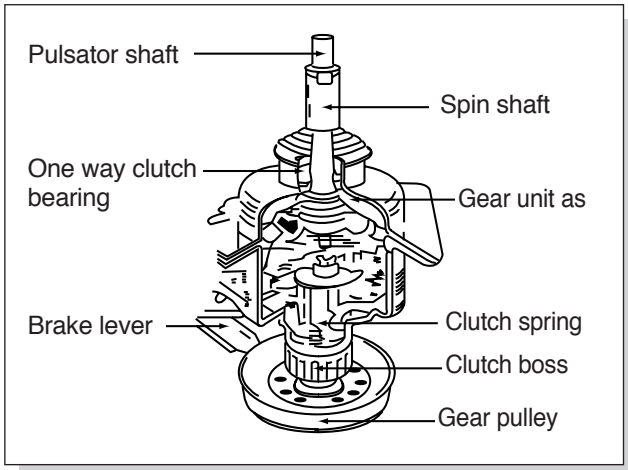


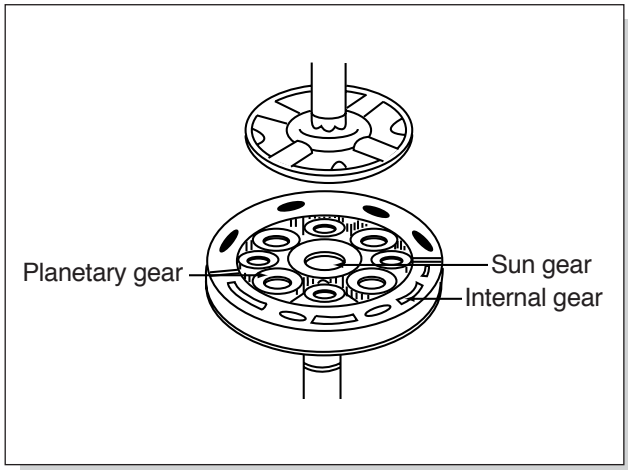
FUNCTIONAL PRINCIPLE

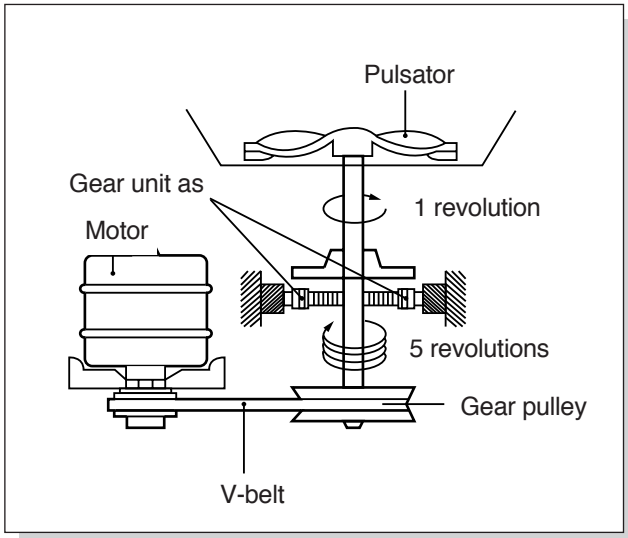
① When the DRAIN MOTOR connected to the power source, the DRAIN MOTOR rotates with 900 r.p.m and revolves the pulley by gear assembly for reducing.
② When the pulley is rotated, the pulley winds the wire to open the drain valve.
③ Therefore, rotation of pulley changed to the linear moving of wire.
④ The wire pulls the brake lever of Gear Mechanism Ass'y within 5 seconds.
⑤ After the wire pulled, gear assembly is separated from motor and condition of pulling is held by operation of the lever.
⑥ When the power is turned off, the drain valve is closed because the wire returns to original position.

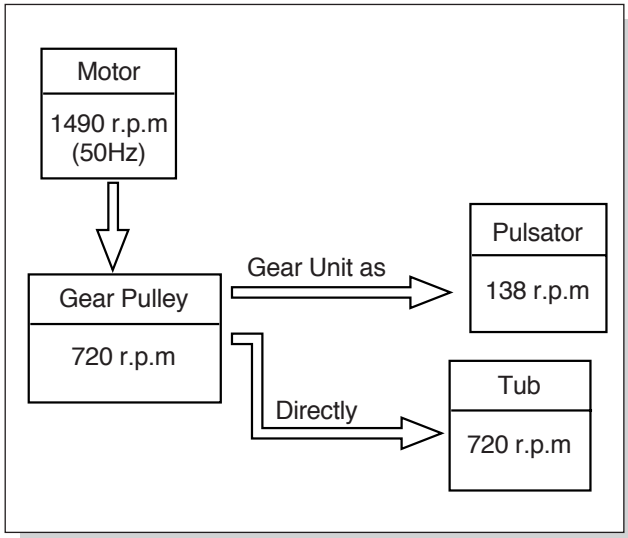
Gear Mechanism Ass'y

The proper water currents is made by the rotation of pulsator at a low speed to prevent the damage to the small sized clothes.



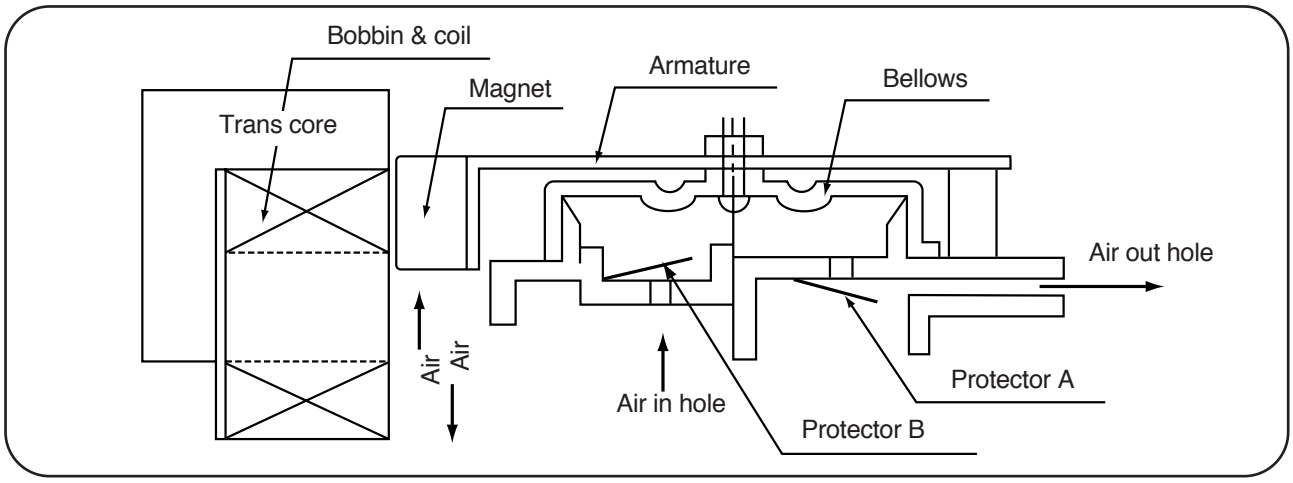






Principle of Bubble Generator

STRUCTURE



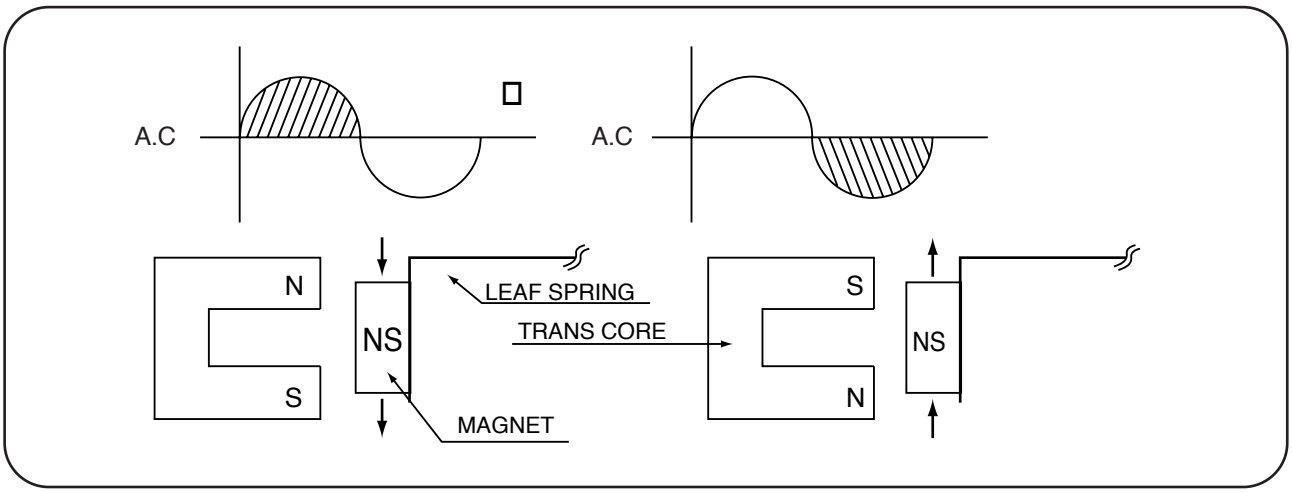
PRINCIPLE OF INTAKE & OUTLET OF THE AIR

INTAKE : ARMATURE moves up, and BELLOWS inhales the air. At the same time, protector B is open and A is close.

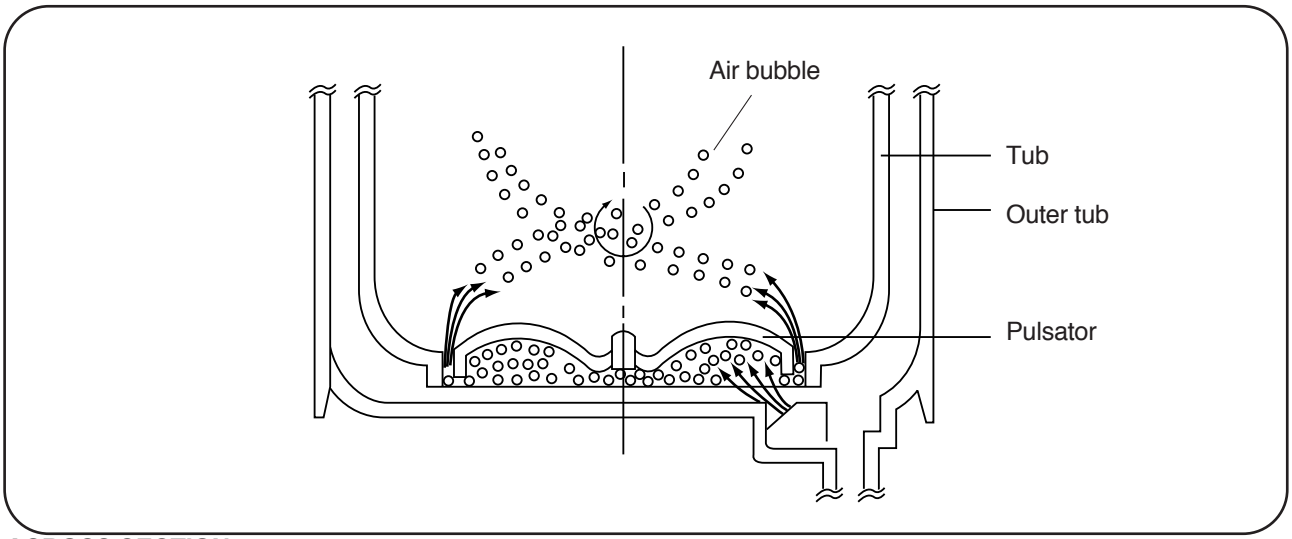
OUTLET : ARMATURE moves down, and BELLOWS exhausts the air. At the same time, protector B is close and A is opend.

FUNCTIONAL PRINCIPLE OF TRANS & MAGNET

- The phase of A.C electric power changes to 60 cycle/second.
- The magnetic pole of trans core is changed by the change of the phase of A.C electric power.
- The core repeats push and pull (3600 times/min.) of the armature magnet.



Functional Principle of Bubble Washing Machine



ACROSS SECTION

FUNCTIONAL PRINCIPLE

Bubble generator supplies the air from the bottom of outer tub to the inner space of pulsator, the air is dispersed by the rotation of pulsator. Air-bubble is created by the centrifugal force, and rises up.

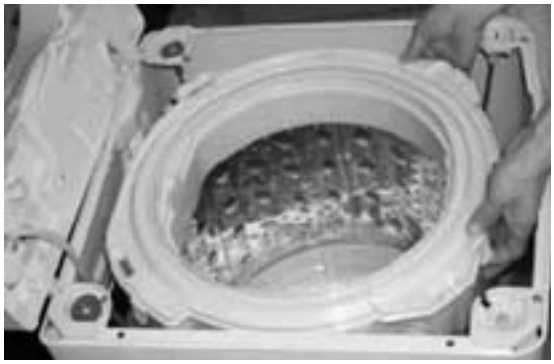
7. DIRECTIONS FOR DISASSEMBLY AND ADJUSTMENT

Warning

BEFORE ATTEMPTING TO SERVICE OR ADJUST ANY PART OF THE WASHING MACHINE, DISCONNECT THE POWER CORD FROM THE ELECTRIC OUTLET.

Gear Mechanism Ass'y Replacement

- Raise the top plate on the outer cabinet.
- Remove outer tub cover from the tub ass'y.



- Loosen the pulsator mounting screw and remove the pulsator.

- Remove the spinner shaft flange nut by using 'T' type box wrench.

- Remove the tub ass'y.

NOTES

To assemble the gear mechanism ass'y, reverse the disassembly procedure.

- Lay the front of the washer on the floor.
- Remove four bolts mounting the plate-gear protect by using a box wrench and remove plate-gear protect.
- Remove the V-belt.

- Remove four bolts mounting the gear mechanism ass'y by using a box wrench.

- Pull out the gear mechanism assy.

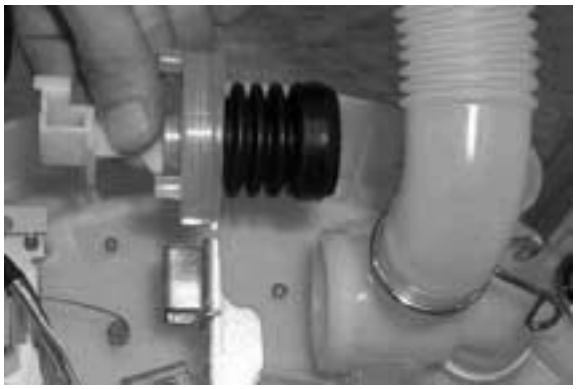
Motor Synchronous And Valve Replacement(Non Pump Model)

● Lay the front of the floor.
● Loosen two special screw and motor synchronous.

● Take out the wire of motor synchonous from the bracket.
● Separate the motor sycnchronous from the base.

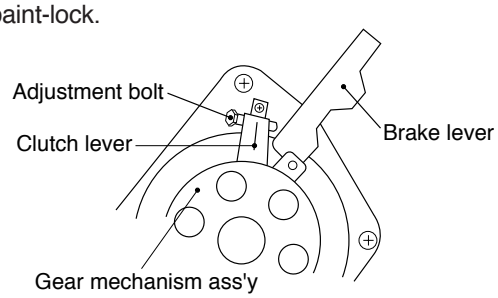
● Turn the valve by using screw driver as shown in picture.

● Remove the valve lid from the valve drain assy.



Brake Adjustment

● Loosen the adjustment bolt and turn the adjustment bolt until the end of the bolt touches to the brake lever.
● Tighten the lock nut and apply a small amount of paint-lock.



NOTES:

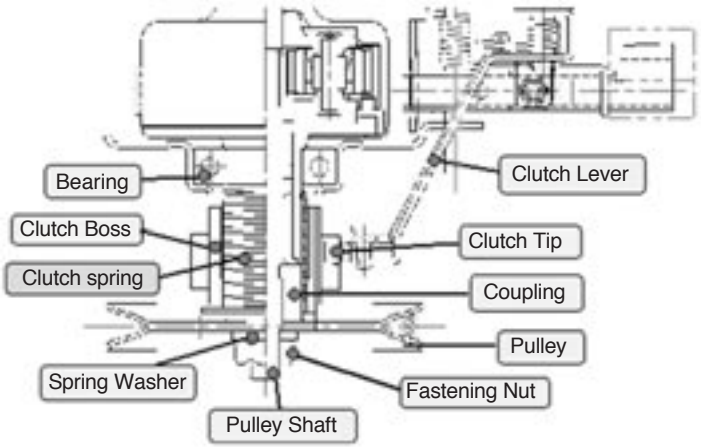
1. The brake adjustment has been made at the factory, so that it is not re-adjust.
   However, in case of insufficient brake operation, problem the upper procedure.

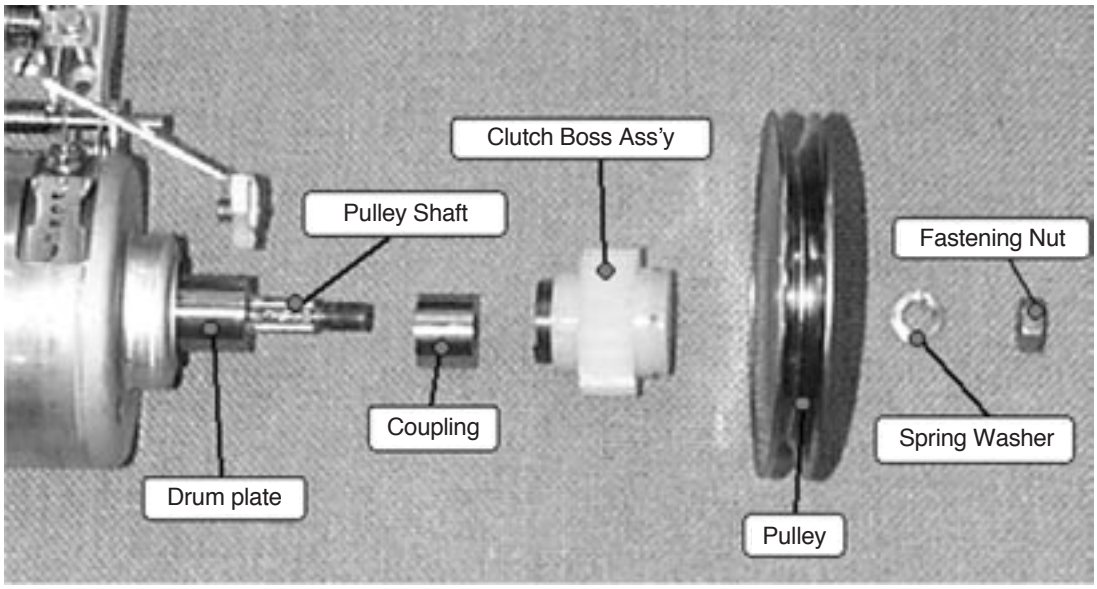
2. Overtightening of the adjustment bolt will cause poor brake performance.

3. Undertightening of the adjustment bolt will cause continuous braking and thereby.
   cause the problems of the motor during the spingcycle.

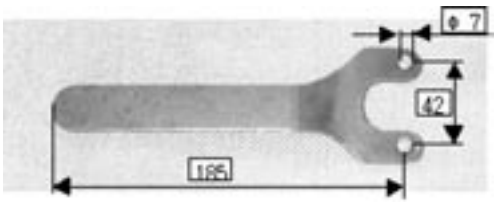
8. THE REPAIR METHOD OF GEAR MECHANISM FOR CLUTCH SPRING PROBLEM

The structure of gear mechanism





●TOOL FOR REPLACING THE CLUTCH BOSS ASSEMBLE●

Tool name	Specification	Q'ty
Fixing jig		1
Ratchet handle		1
Socket and extension bar	socket : 10mm, 17mm	per each
Some cotton yarn		some

how to check the clutch spring Problem

PROBLEM

1) THE LAUNDARY IS IN THE SPIN TUB UNEVENLY WHEN JUST STARTING SPIN PROCESS.

2) THEREFORE, IT CAUSE THE SERIOUS NOISE AND VIBRATION WHEN WASHING AND SPINNING PROCESS OR SUPPLING WATER IRREGULARY WHEN SPINNING PROCESS AND CAUSE SHORT OF SPIN PERFORMANCE.

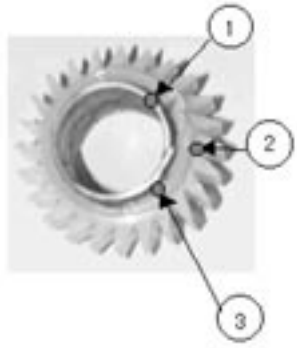
CHECKING METHOD
IN THIS CASE, YOU MUST EMPTY THE SPIN TUB FIRST.

1) TO CHECK THE REVOLUTION OF SPIN TUB. IF THE SPIN TUB DOES NOT REVOLVE AND ONLY THE PULSATOR IS TURNING, THAT IS CLUTCH SPRING DEFECT.

2) TO CHECK THE SPIN SPEED(RPM) BETWEEN SPIN TUB AND PULSATOR.
IF YOU FIND THE DIFFERENT SPIN SPEED BETWEEN SPIN TUB AND PUSATOR, THIS IS ALSO CLUTCH SPRING DEFECT.

IN THIS CASE, WE ARE GOING TO SUPPLY THE CLUTCH BOSS ASSEMBLY INSTEAD OF GEAR MECHANISM ASSEMBLEY. PLEASE REFER TO FOLLOWING FIG.

THE CLUTCH BOSS ASSEMBLY

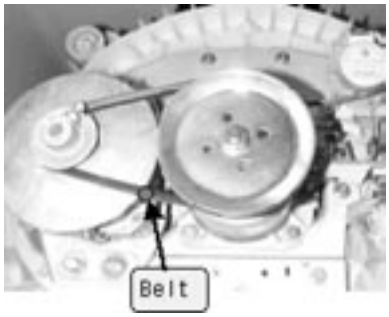
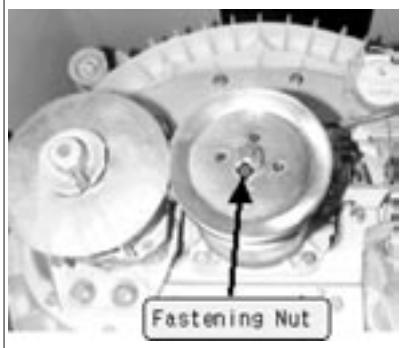


NO.	PARTS NAME	SPECIFICATION	CODE	Q'TY
1	CLUTCH SPRING	1.5*1.5	3615110000	1
2	CLUTCH BOSS	PP	3619301300	1
3	GREASE	beacon#325 3g		
PACKING METHOD	PACKING THE CLUTCH BOSS ASS'Y BY USING VINYL PACK			1

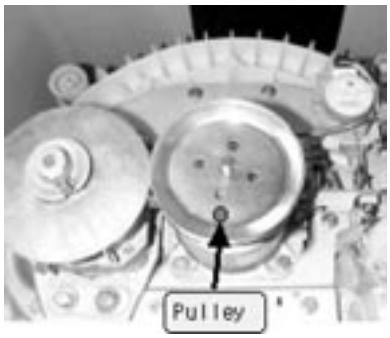
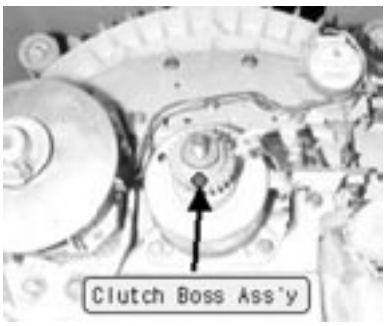
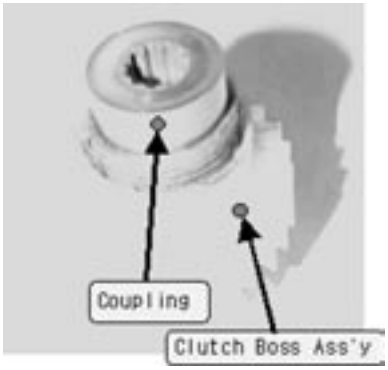
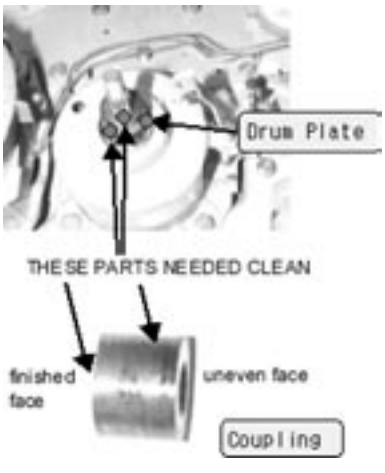
CLUTCH BOSS ASS'Y PART CORD : 3610028000

The Process Of Disassemble

Disassemble 1

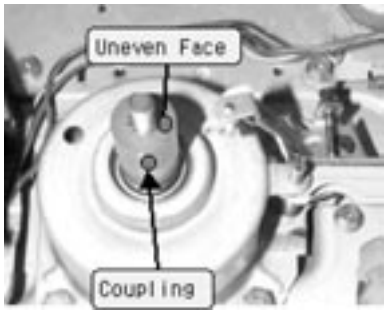
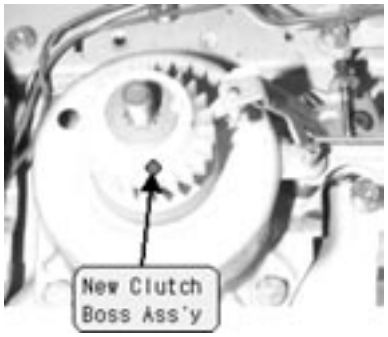
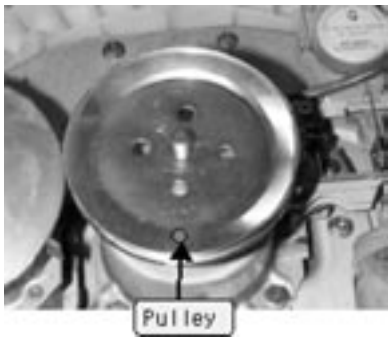
No.	Process		Notice
1	Release screws marked 4-point	Remove the protector	Use wrench or driver - ratchet handle - extension bar - socket : 10mm
2		Remove the v-belt	
3		Loosen the fastening nut	Use fixing jig for pulley as to see fig 1. and 17mm-socket for nut
4		Disassemble the spring washer	Take out plain washer if it has

Disassemble 2

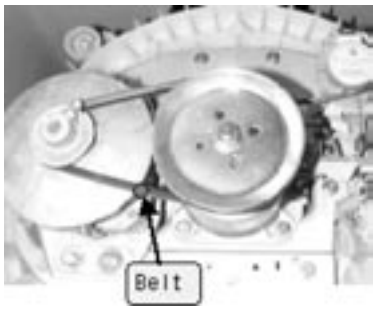
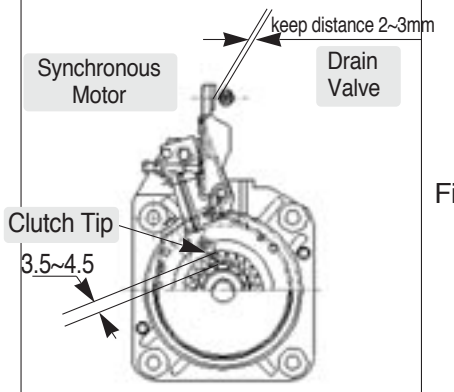
No.	Process		Notice
5		Disassemble the pulley	
6		Disassemble the clutch boss assembly	Catch the boss and pull upward with spiral rotate in the clockwise direction
7		Separate coupling from clutch boss ass'y	
8		Cleaning	Clean the drum plate, coupling surface and contact face between drum plate and coupling It is necessary to keep cotton piece goods being dry and clean

The Process Of Assemble

Assemble 1

No.	Process		Notice
1		Assemble the coupling	Check the uneven face of coupling is assembled upward
2		Assemble the new clutch boss ass'y	- Push in the clutch boss ass'y with rotating on the clockwise direction. - After assembling, rotate on the clockwise more 2~3 teeth and pull out the pulley shaft upward
3		Assemble the pulley	
4		Assemble the spring washer	If there was plain washer, you have to assemble plain washer the first and then assemble spring washer

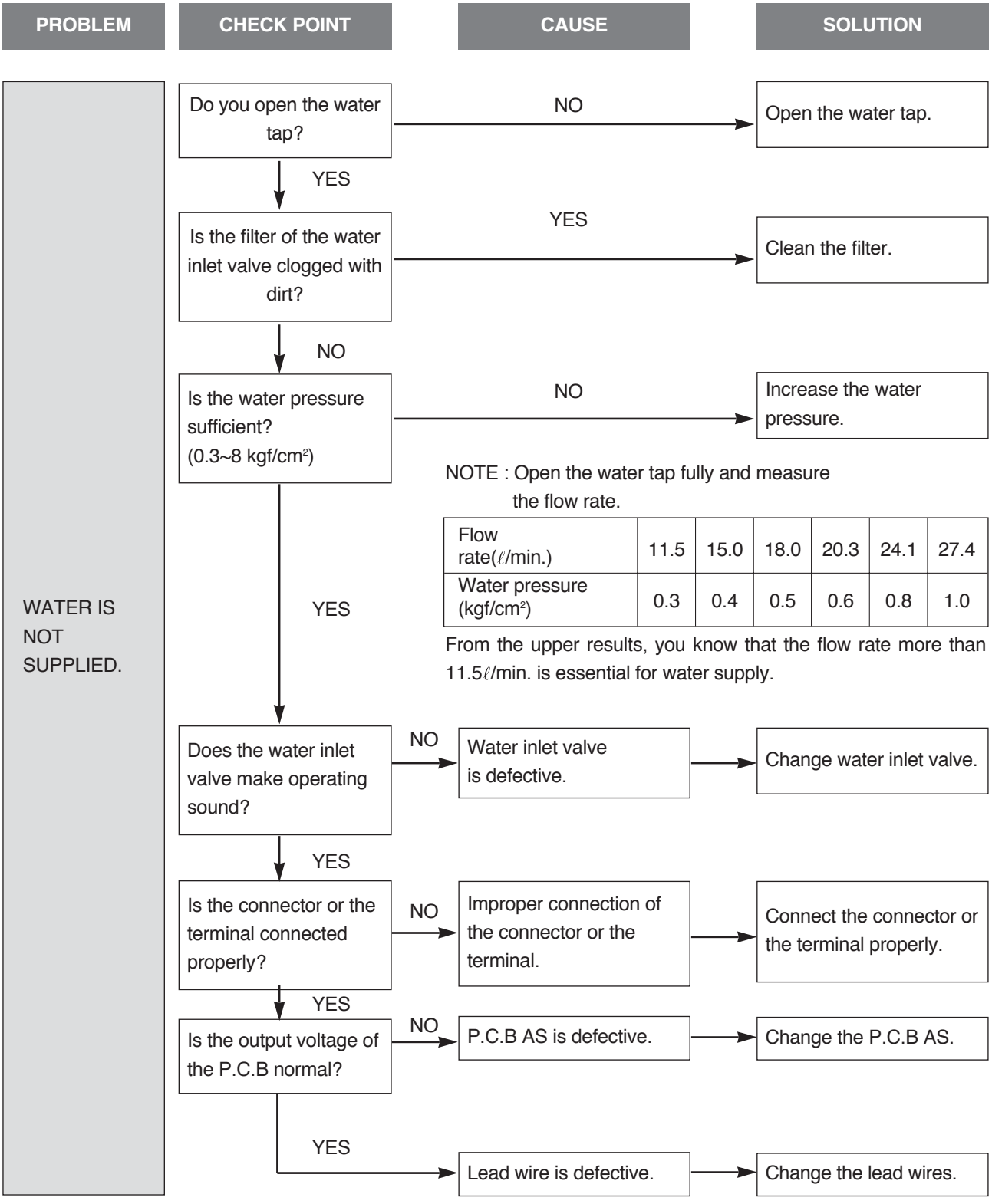
Assemble 2

No.	Process		Notice
5		Assemble the fastening nut	- Use fixing jig and 17mm socket wrench as if disassembling, as fastening torque about 100~200kgf-cm. - Check the end-play, up and downward and check the binding force, too much or not on bi-direct of rotation.
6		Assemble the Belt	
7		Assemble the protector	
8		Final checking	Finally, check the distance between brake lever and control bolt. (2~3mm) Also, check the interferance depth both clutch tip and clutch boss(3.5~4.5mm)

NOTES

1. When replace the P.C.B. ASS'Y do not scratch the surface of the P.C.B. ASS'Y.
2. Disconnect the power cord from the electric outlet.

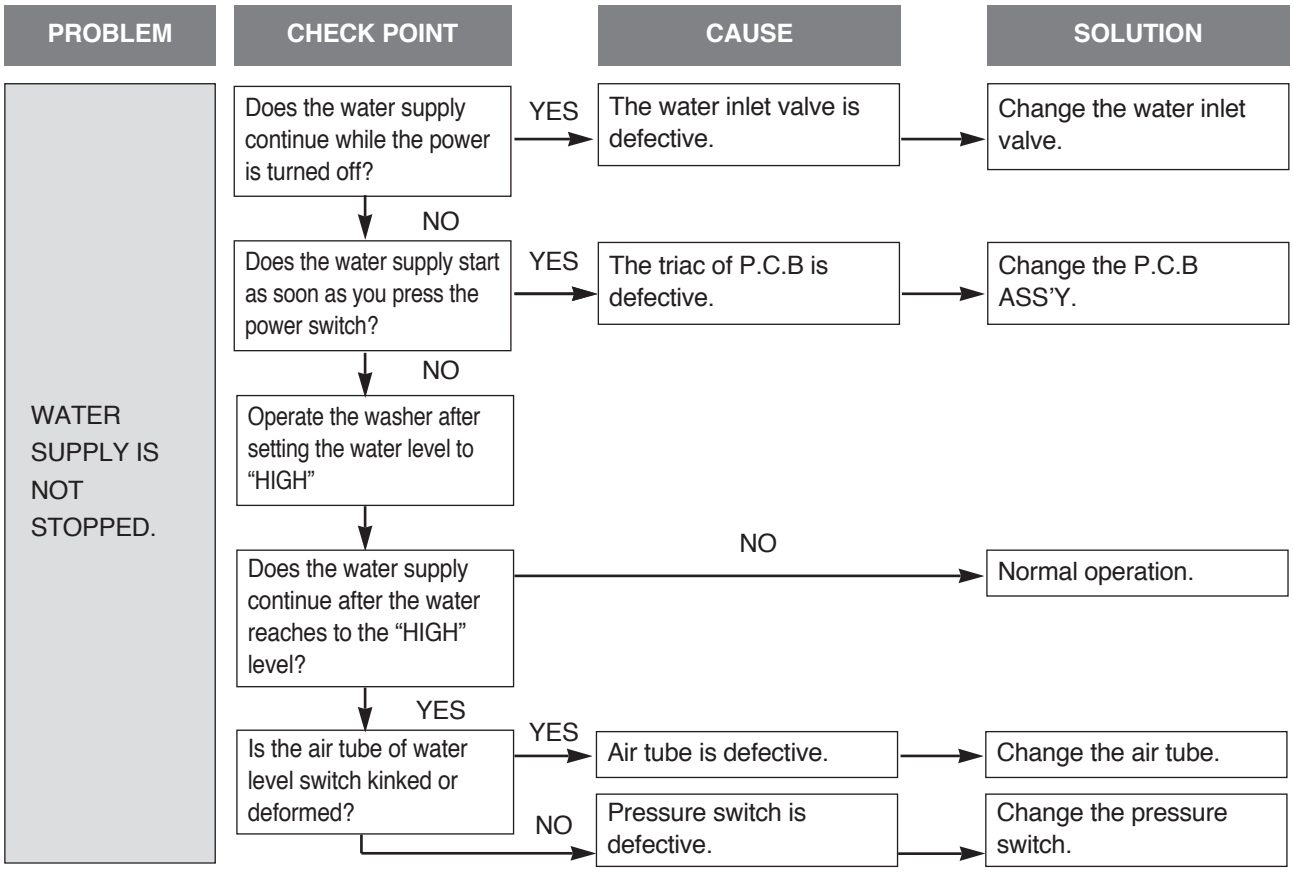
Concerning Water Supply



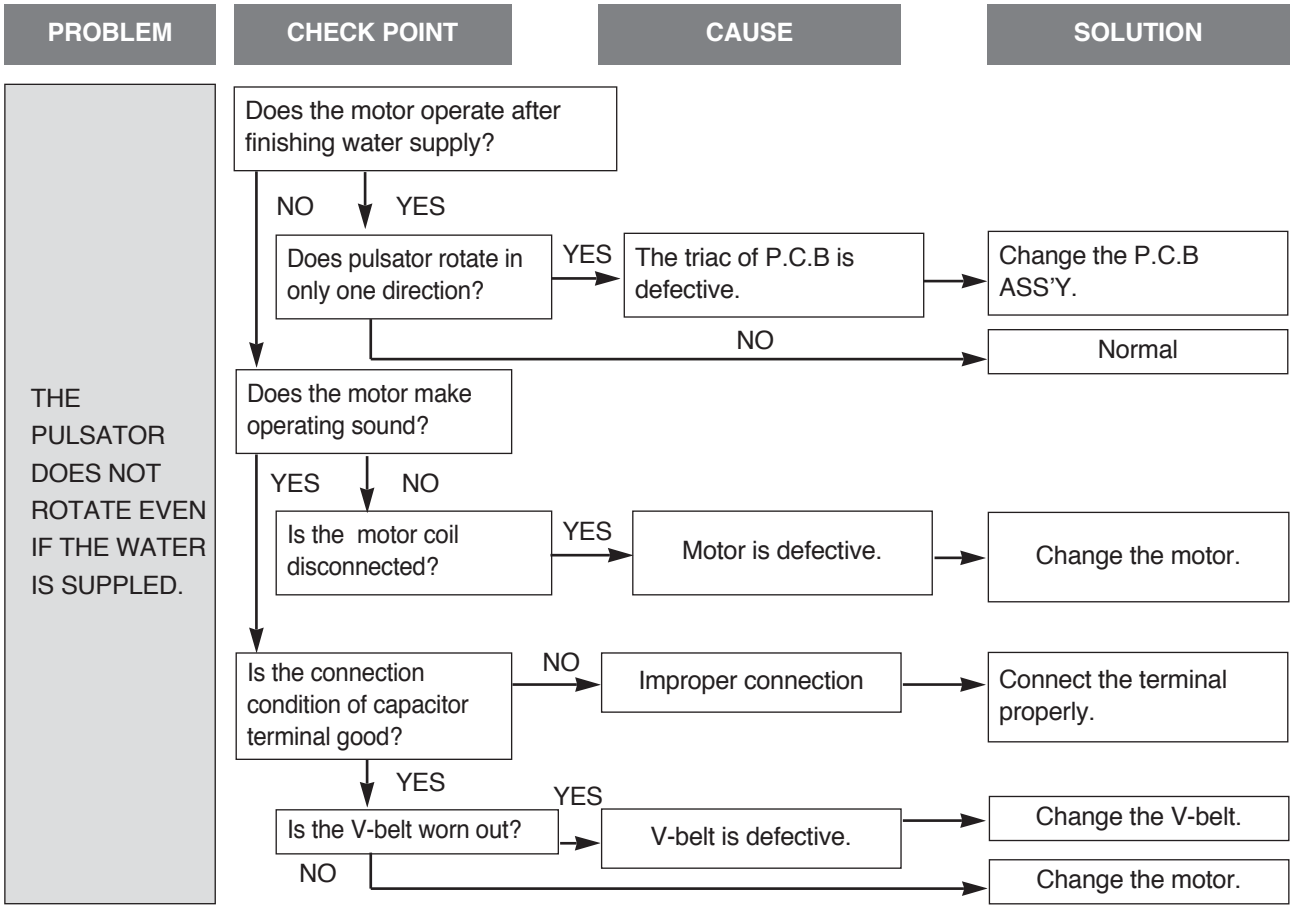
NOTE : Open the water tap fully and measure the flow rate.

Flow rate(ℓ/min.)	11.5	15.0	18.0	20.3	24.1	27.4
Water pressure (kgf/cm²)	0.3	0.4	0.5	0.6	0.8	1.0

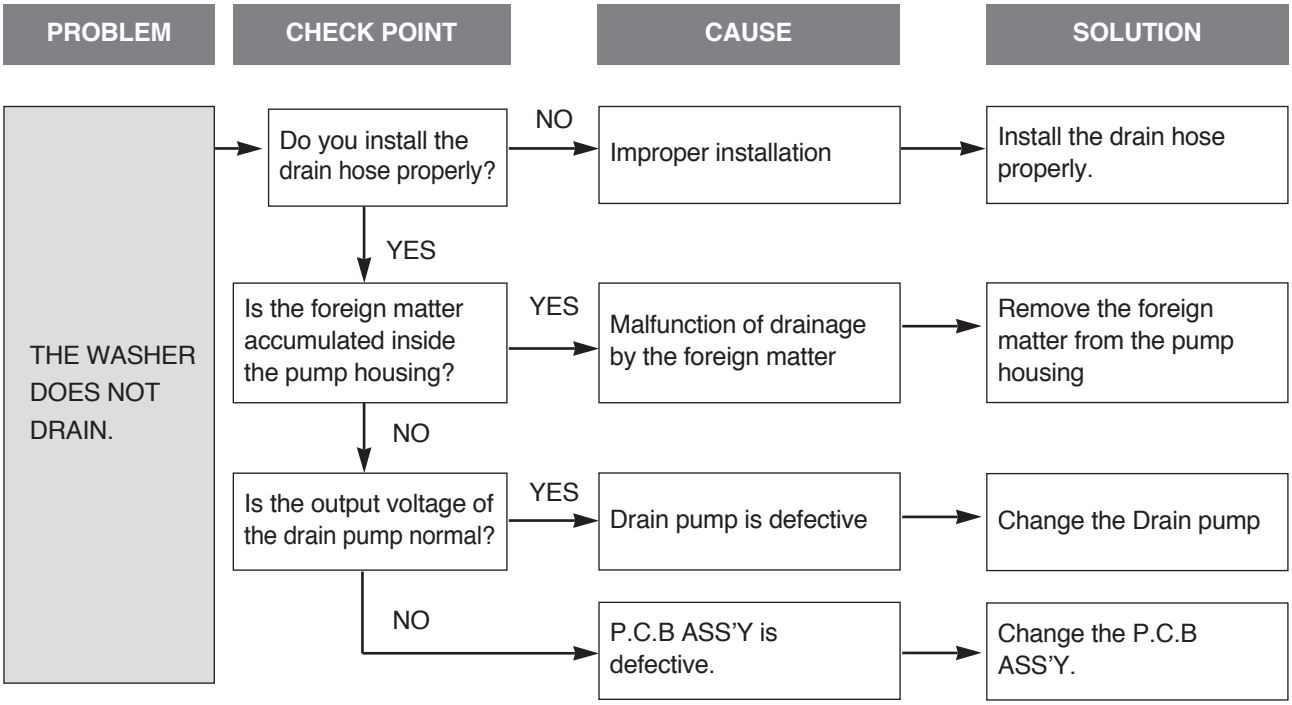
From the upper results, you know that the flow rate more than 11.5ℓ/min. is essential for water supply.


PROBLEM
CHECK POINT
CAUSE
SOLUTION
WATER SUPPLY IS NOT STOPPED.
Does the water supply continue while the power is turned off?
YES
The water inlet valve is defective.
Change the water inlet valve.
NO
Does the water supply start as soon as you press the power switch?
YES
The triac of P.C.B is defective.
Change the P.C.B ASS'Y.
NO
Operate the washer after setting the water level to "HIGH"
Does the water supply continue after the water reaches to the "HIGH" level?
NO
Normal operation.
YES
Is the air tube of water level switch kinked or deformed?
YES
Air tube is defective.
Change the air tube.
NO
Pressure switch is defective.
Change the pressure switch.

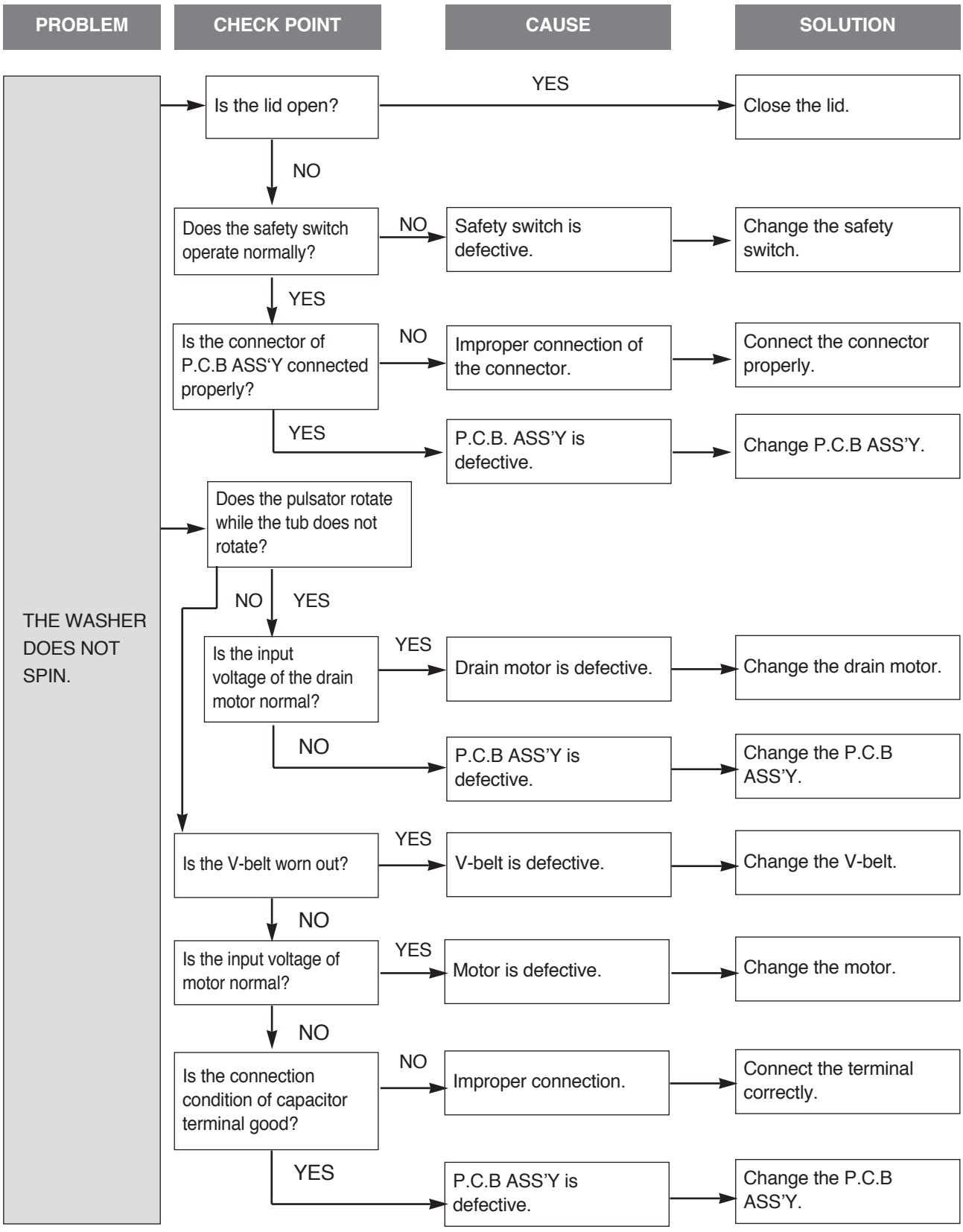
Concerning Washing



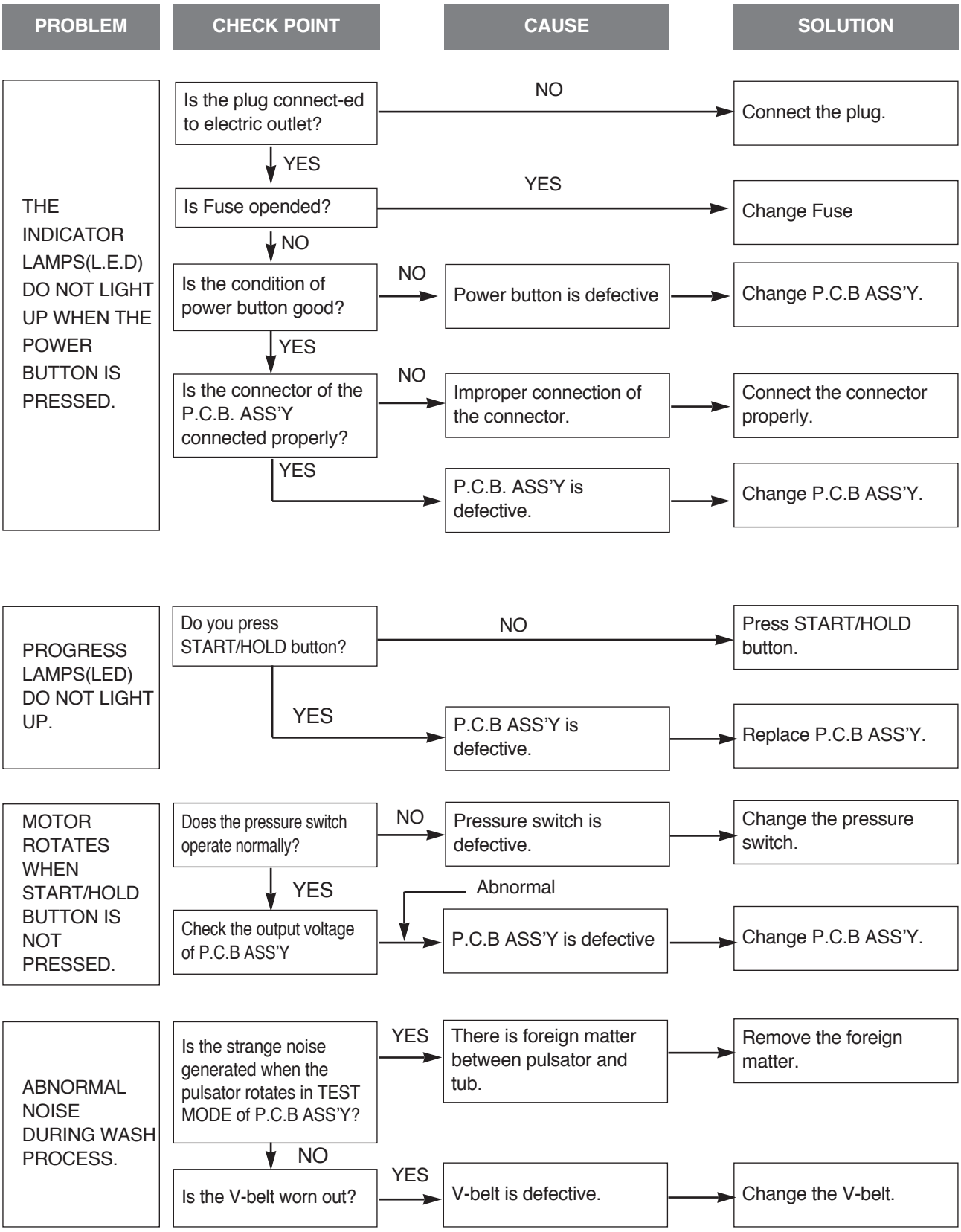
Concerning Draining



Concerning Spinning



Concerning Operation



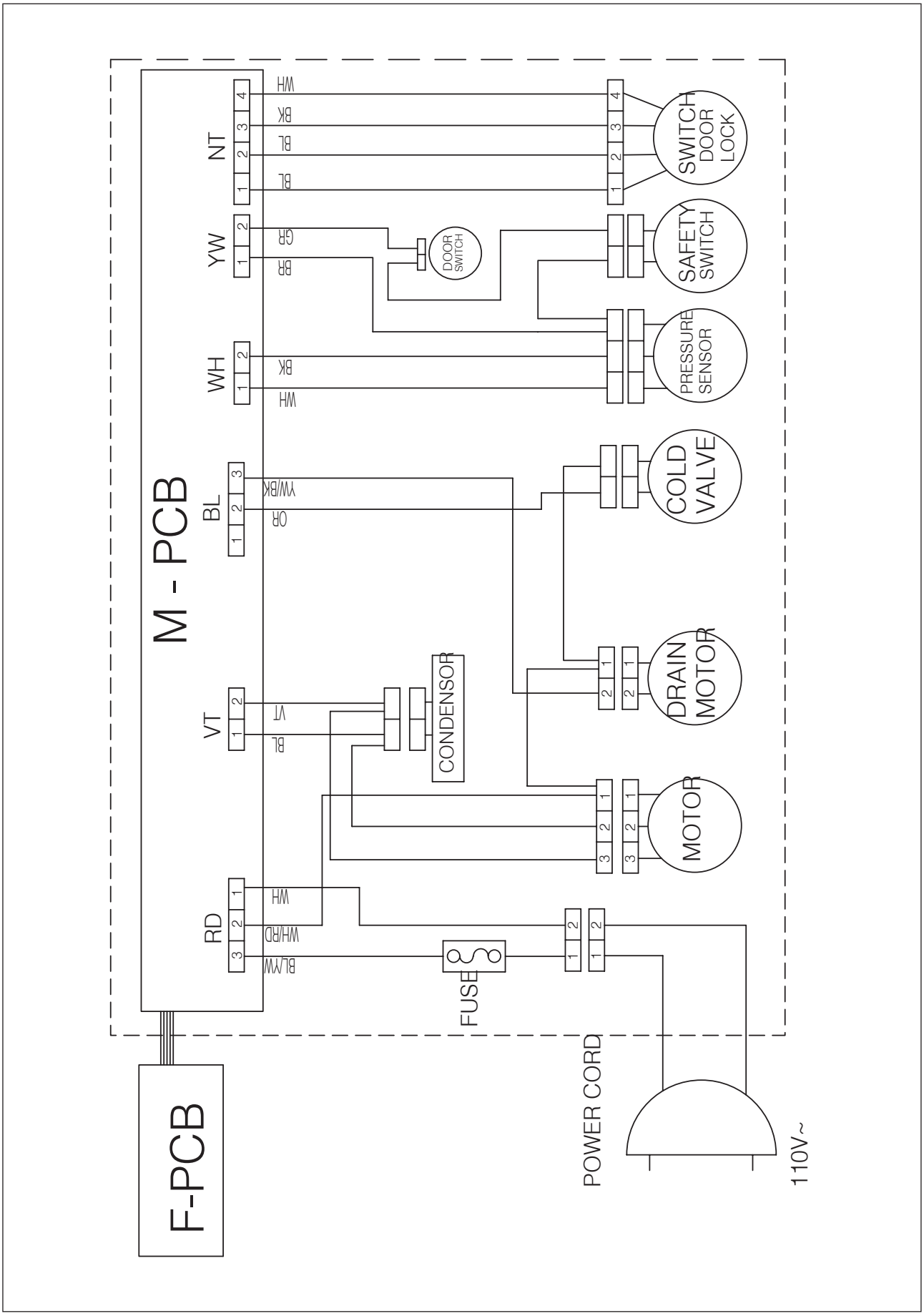
10. PRESENTATION OF THE P.C.B ASS'Y

Concerning Error Message

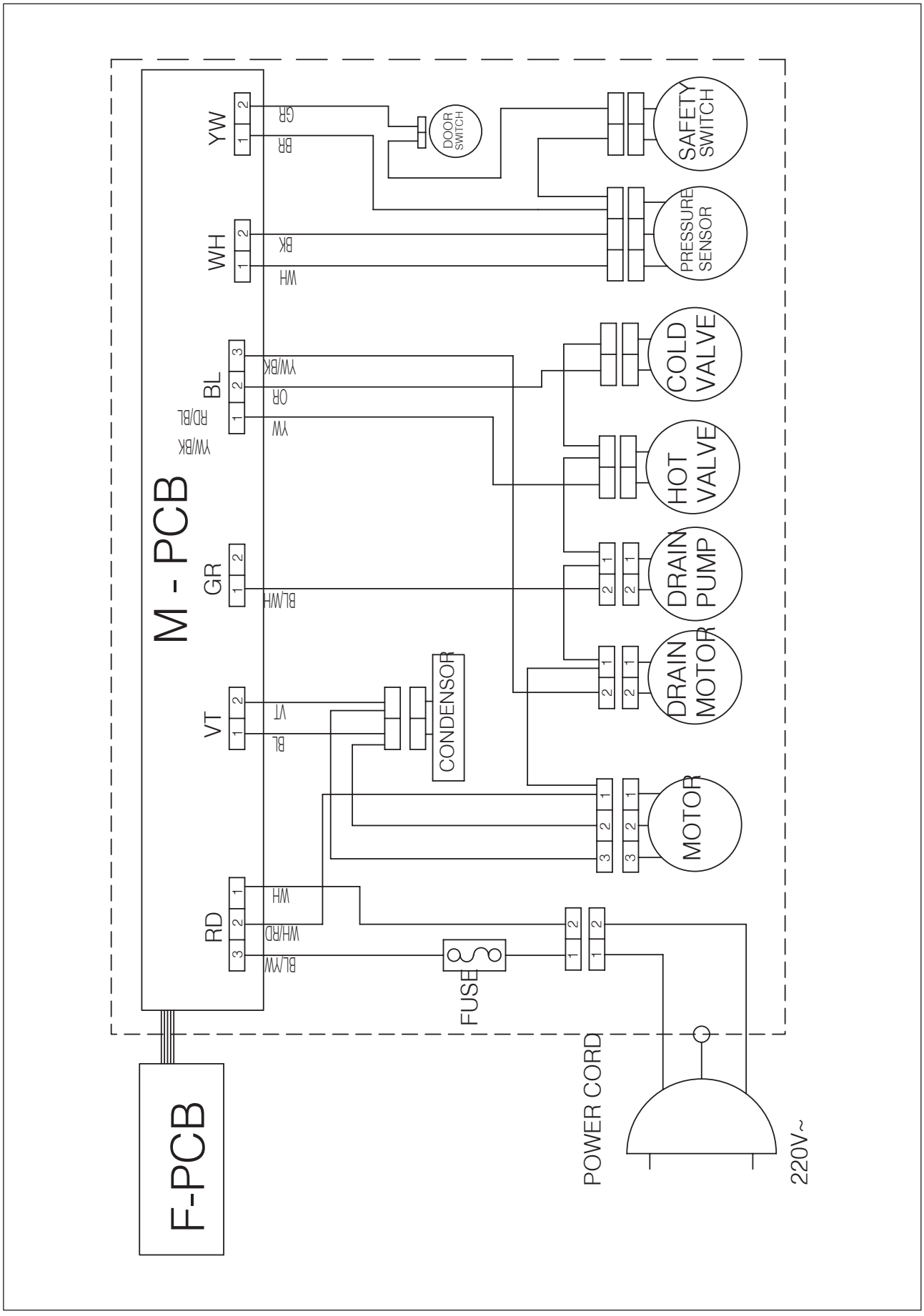
MESSAGE	CAUSE	SOLUTION
	Improper installation of drain hose.	Install drain hose properly.
	The drain hose is blocked up by foreign matter.	Remove foreign matter from drain hose.
	Drain motor is inferior.	Change drain motor.
	The water tap is closed.	Open the water tap.
	The water inlet filter clogged.	Clean the water inlet filter.
	It passes over the 30 minutes, yet it doesn't come to assigned water level.	Check whether or not is comes to the assigned water level.
	Wash loads get uneven during spin.	Re-set wash loads evenly.
	Poor installation of the unit.	Proper installation.
	The lid is opened.	Close the lid.
	The safety switch is inferior.	Change the safety switch.
	The load sensing is inferior. After the load sensing operates about 7 seconds, the message is displayed during 1 second and water level is always fixed 'high'.	Change the P.C.B. ASS'Y.
	The water level sensing is inferior.	Check the water level sensor and the contact part of the connector.

* If the display error message shown UE or LE, please check the both message's causes and solutions.

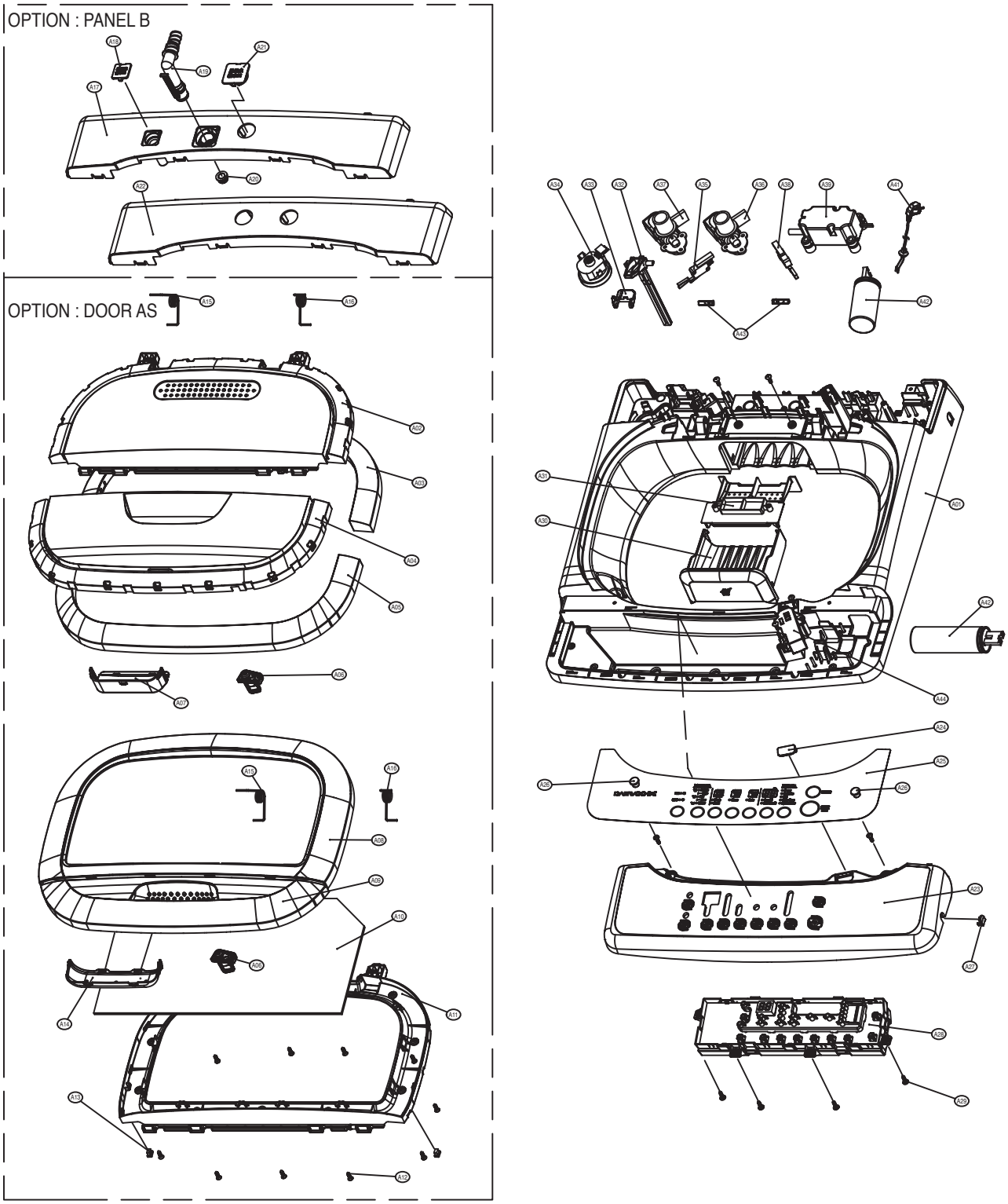
Wiring Diagram [non-pump]



[Pump]


M - PCB
F-PCB
YW
WH
BL
GR
VT
RD
YW/BK
RD/BL
GR
BR
BK
WH
YW/BK
OR
YW
BL/WH
VT
BL
WH
WH/RD
BL/YW
DOOR SWITCH
SAFETY SWITCH
PRESSURE SENSOR
COLD VALVE
HOT VALVE
DRAIN PUMP
DRAIN MOTOR
MOTOR
CONDENSOR
FUSE
POWER CORD
220V~

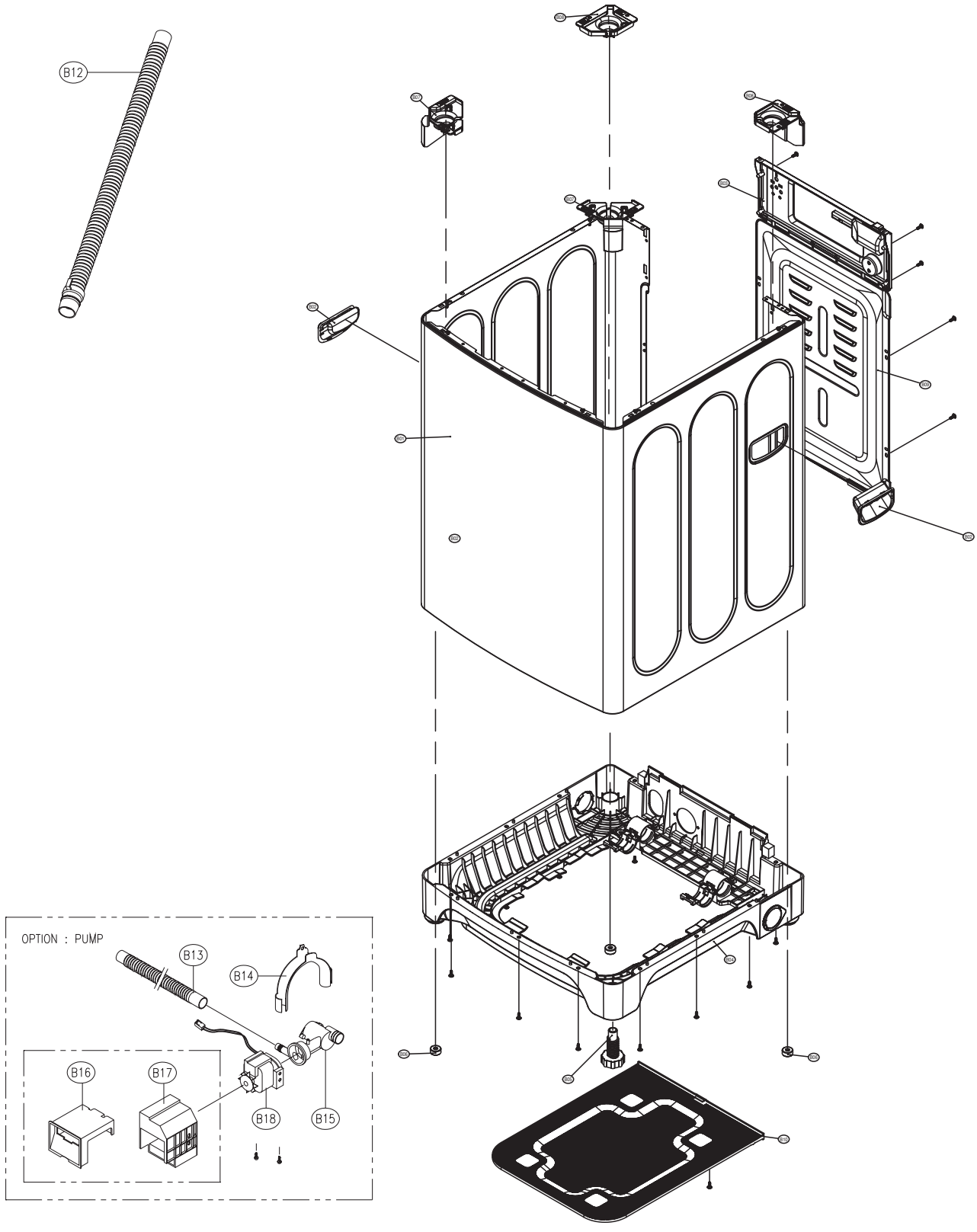
Parts Diagram



Parts List

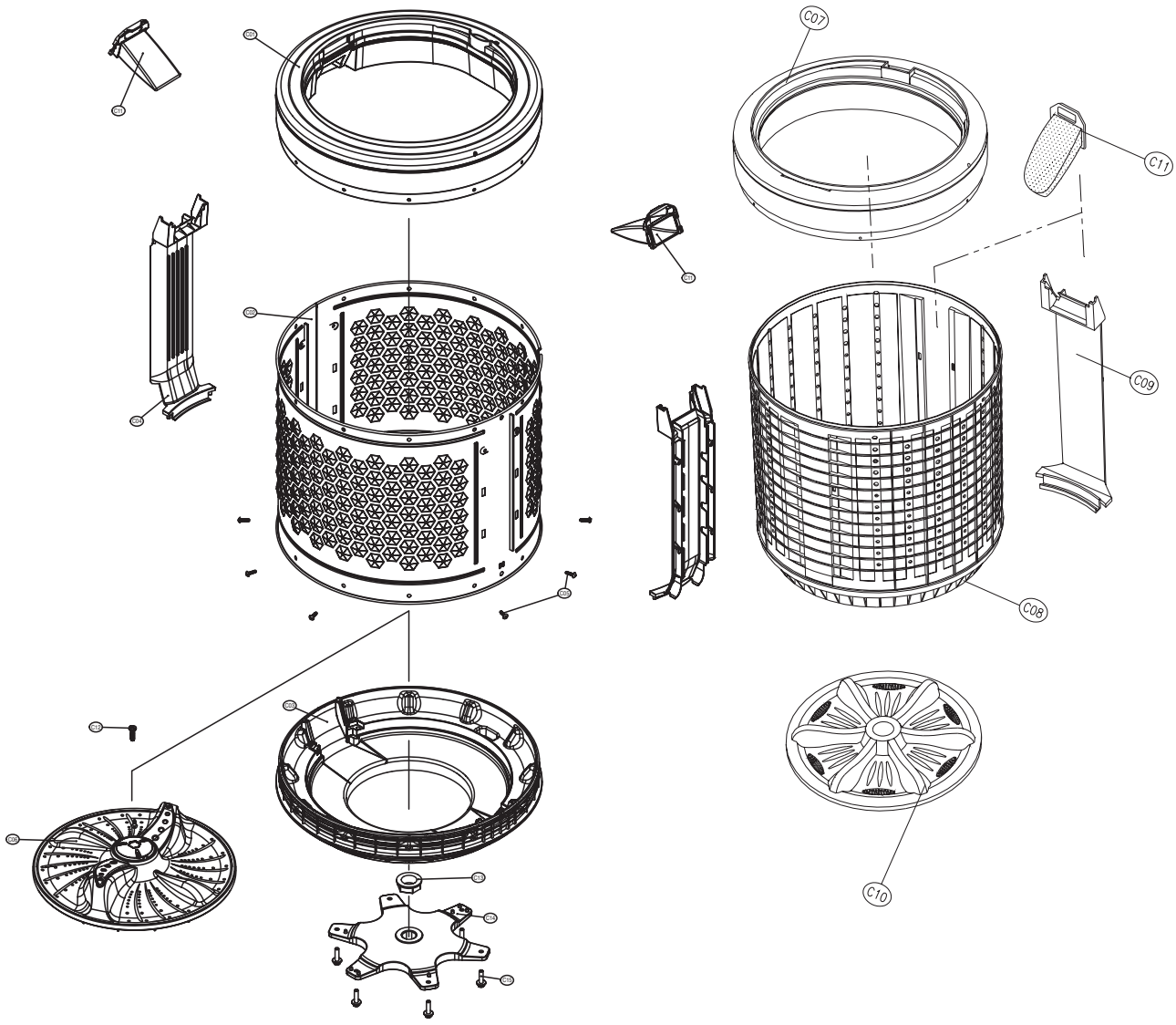
NO	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
A01	PLATE T	3614548300	PP	1	
A02	MOLD DECO DOOR B	36116DXJ00	ABS	1	
A03	MOLD DOOR B	36117YDV00	ABS	1	
A04	MOLD DECO DOOR F	36116DXK00	ABS	1	
A05	MOLD DOOR F	36117YDW00	ABS	1	
A06	HOOK DOOR	3613102400	ABS	1	8100 공용
A07	MOLD CAP HANDLE	3612615800	ABS	1	
A08	GLASS DOOR OUTER	36117YDS00	ABS	1	
A09	GLASS DOOR F	36117YDU00	ABS	1	
A10	GLASS	3611A14700	GLASS	1	
A11	GLASS DOOR INNER	36117YDT00	ABS	1	
A12	SCREW			11	
A13	CUSHION DOOR	3611559900	NR	2	
A14	DOOR HANDDLE	3612615700	ABS	1	
A15	SPRING DOOR L	3615121000	SUS	1	
A16	SPRING DOOR R	3615121000	SUS	1	
A17	PANEL B	36142T6B00	PP	1	일본향
A18	CAP DRY	3610922500	PP	1	
A19	CONNECTOR HOSE	3619506600	PS	1	
A20	PACKING	3614004100	SILICON	1	
A21	CAP WATER	3610922600	PP	1	
A22	PANEL B	36142T6A00	PP	1	2 VALVE
A23	PANEL F	36142T6C00	ABS	1	
A24	CAP HOOK	3610922700	ABS	1	
A25	DECORATOR FILM	36116DXL00	PC	1	
A26	CAP REAR	3610902600	NR	2	
A27	CAP SVC	3610922200	ABS	1	8100 공용
A28	PCB AS	PRPSSWU___	AC 110-130V, 60Hz	1	NON-PUMP
		PRPSSWU___	AC 220-240V, 50/60Hz		
A29	SCREW			4	
A30	CASE DETERGENT	36111T5Q00	PP	1	
A31	NOZZLE	3618114100	PP	1	
A32	LEVER SAFETY S/W	3613701800	POM	1	
A33	PLATE LEVER	3614521400	PP	1	
A34	SENSOR PRESSURE AS	3614801630	CDN15N, 180 ,3PIN	1	
A35	MICRO SWITCH	3619045400	GSM-V16183A4, 250V/16A	1	
A36	VALVE INLET	3615403332	AC 100-130V, 50/60Hz COLD	1	UPWARD
		3615403731	AC 220-240V, 50/60Hz COLD		
A37	VALVE INLET	3615403332	AC 100-130V, 50/60Hz HOT	1	BACKWARD
		3615403831	AC 220-240V, 50/60Hz HOT		
A38	MICRO SWITCH	3619045400	GSM-V16183A4, 250V/16A	1	

NO	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
A39	Z-AIR_BUBBLE			1	
A40	HARNESS AS	3612787922	8A COLD BUBBLE	1	SAINGLE VALVE
		3612787926	5A COLD BUBBLE		
		3612787930	8A COLD/HOT BUBBLE		DUAL-VALVE, PUMP
		3612787936	5A COLD/HOT BUBBLE		
		3612787940	8A COLD/HOT NON-BUBBLE		
		3612787946	5A COLD/HOT NON-BUBBLE		
		3612787970	8A COLD/HOT BUBBLE		DUAL-VALVE
		3612787975	5A COLD/HOT BUBBLE		
		3612787980	8A COLD/HOT NON-BUBBLE		
		3612787985	5A COLD/HOT NON-BUBBLE		
A41	CORD POWER AS	3611337000	F H05VV 3X0.75 1.9M WH	1	CHILE
		3611337100	RVCT 2X0.75 1.9M GY		JAPAN
		3611337200	N LFC-3R 3X0.75 1.9M GY		AUSTRALIA
		3611337300	F H05VV 3X0.75 1.9M WH		ITALY
		3611337400	RW-300/500 3X0.75 1.9M		PR.CHINA
		3611337500	VCTF 3X0.75 1.9M		INDIA
		3611339000	U VCTF 3X0.75 1.9M GY		SOUTH KOREA
		3611338200	F H05VV 3X0.75 1.9M BK		PERU
		3611338200	F H05VV 3X0.75 1.9M BK		KUWAIT, OMAN
		3611337710	BS-1363A		MALAYSIA
		3611338000	H05VV-F 3X0.75 1.9M		SINGGAPORE
		3611338100	A-VCTFK 2X0.75 1.9M GY		TAIWAN
		3611338200	F H05VV 3X0.75 1.9M BK		EUROPEAN NATIONS
		3611338300	C SJT 3X18AWG 1.9M GY		PANAMA, USA
		3611338400	H05VV-F 3X0.75 1.9M GY		ARGENTINA
		3611338500	H05VV-F 3X0.75 1.9M GY		SOUTH AFRICA
		3611337710	BS-1363A		UAE
A42	UNIT CAPACITER	3618911600	8.4 400VAC CAN-TYPE	1	AC120-230V, 50/60Hz
		3618911900	30 200VAC CAN-TYPE		AC120-127V, 50/60Hz
		3618912000	33.6 200VAC CAN-TYPE		AC110V, 60Hz
		3618959700	7.5 400VAC CAN-TYPE		AC240V, 50Hz
A43	HINGE DOOR	3612902400	POLYACETAL	2	
A44	SWITH DOOR LOCK	3619048900	ENTI TECH	1	


B12
OPTION : PUMP
B13
B14
B16
B17
B18
B15

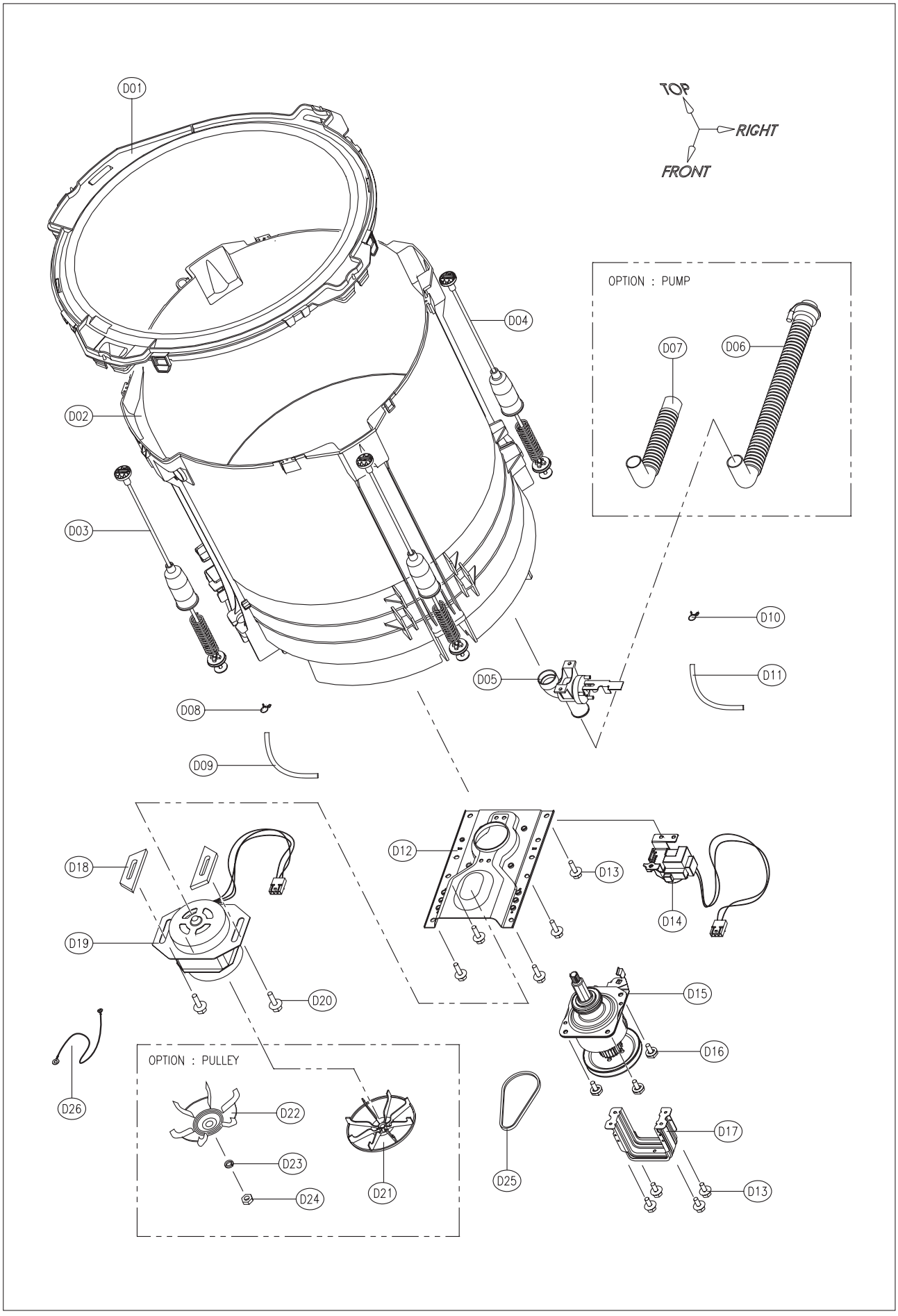
Parts List

NO	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
B01	CABINET	361081WS00	SGCC T=0.57	1	
B02	HANDLE CABINET	3612603310	PP	2	
B03	PLATE UPPER	3614521600	PP	1	
B04	BASE U	3610396300	PP	1	
B05	LEG ADJUST AS	3617702122	DWF-1089W2	1	
B06	LEF FIX	3617703000	SBR	3	
B07	HOLDER SUPPORT FL	3615306200	POM	1	
	HOLDER SUPPORT FR	3615306400	POM	1	
B08	HOLDER SUPPORT BL	3615306300	POM	1	
	HOLDER SUPPORT BR	3615306500	POM	1	
B09	COVER BACK	3611413605	SPG 0.35T	1	
B10	COVER UNDER	3611418500	PP	1	OPTION
B11	HARNESS OUTER	3610068700	50/0.18GREEN ST710489-2	1	2-WIRE POWER CORD
B12	HOSE DRAIN O AS	3613213560	LDPE L=950	1	NON-PUMP
B13	HOSE DRAIN O AS	3613218860	LDPE/EVA L=1600 PUMP	1	PUMP
B14	GUIDE DRAN HOSE	3612502300	PP	1	
B15	UNIT DRAIN PUMP AS	3618962815	AC 220-240V/50Hz	1	
B16		3618963015	AC 220V/60Hz		
B17		3618962905	AC 110-127V/60Hz		
B18					


C07
C11
C09
C08
C10

Parts List

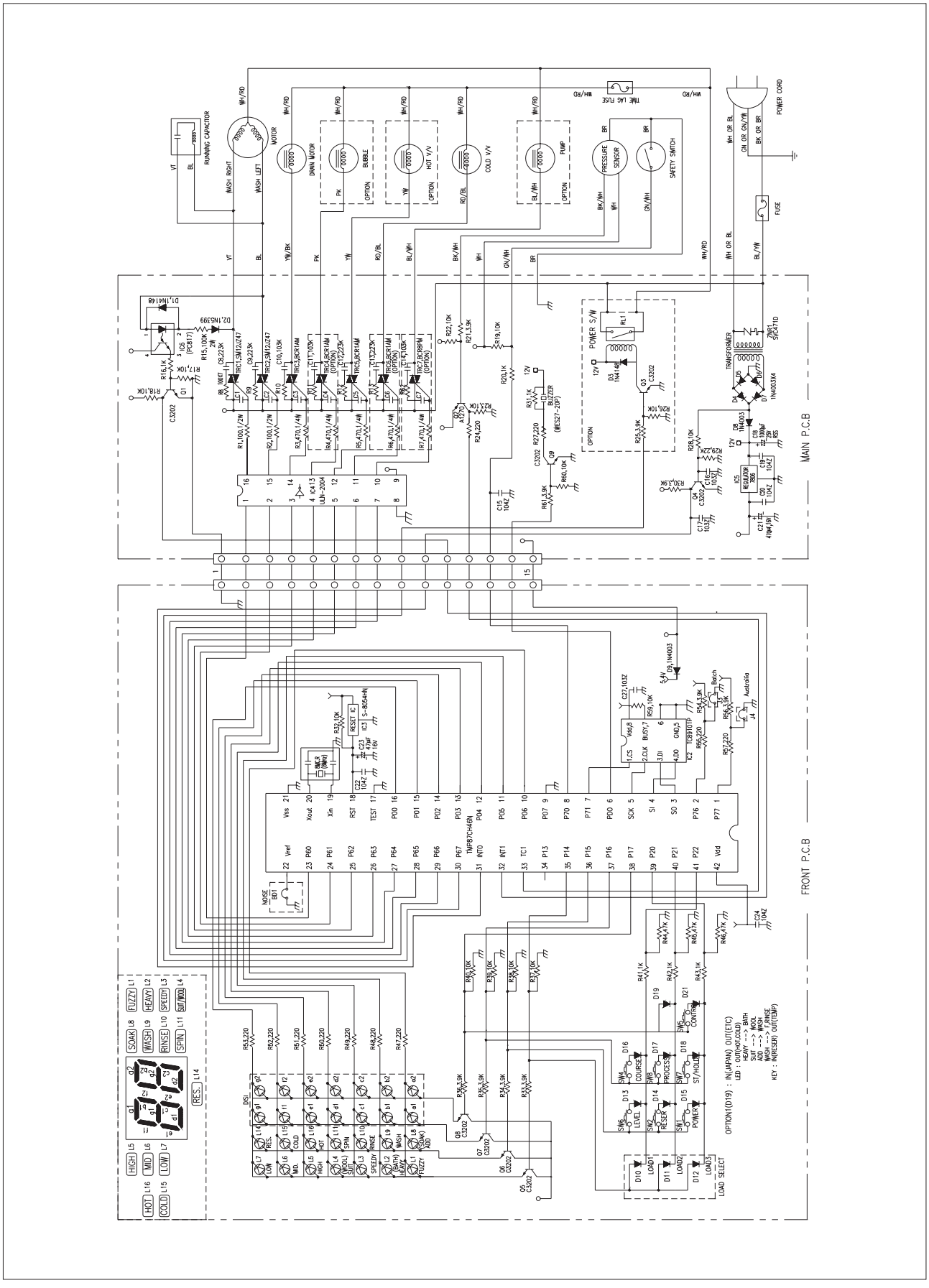
NO	PARTS NAME	PARTS CODE	DESCRIPTION	REMARK
C01	BALANCER AS	36161___00	DWF-900S	STAINLESS STEEL
C02	TUB I	3618832400	SUS 0.4T	
C03	TUB U	3618832500	HIPS	
C04	GUIDE FILTER	3612514100	DWF-900S	
C05	SPECIAL SCREW	3616051629	AUA 5.5X16	
C06	PULSATOR AS	37197___00	DWF-900S	
C07	BALANCER AS	3616104500	DWF-5510PN	PLASTIC
C08	TUB I	3618808100	PP	
C09	GUIDE FILTER	3612503910	PP	
C10	PULSATOR AS	3619706600	DWF-750WTP	
C11	FILTER AS	4505E82002	POLYESTER 90X120 INSERT	
C12	SPECIAL SCREW	3616002901	SUS 304 NON-SILOCK	
C13	SPECIAL NUT	4507D83080	SUS 304	
C14	FLANGE TUB	3617201100	5KG 3-FOOT	
C15	SPECIAL SCREW	3616007000	SCM24H,6.5X24	


D01
TOP
RIGHT
FRONT
OPTION : PUMP
D07
D06
D04
D02
D03
D10
D11
D05
D08
D09
D18
D19
D20
D12
D13
D14
D15
D16
D17
D13
D26
OPTION : PULLEY
D22
D23
D24
D21
D25

Parts List

NO	PARTS NAME	PARTS CODE	DESCRIPTION	REMARK
D01	COVER TUB O	3611434300	PP	
D02	TUB O	3618832300	PP	
D03	SUSPENSION AS F	36198___00	FRONT	
D04	SUSPENSION AS B	36198___00	REAR	
D05	VALVE DRAIN AS	3615408500	DWF-750M	NON-PUMP
D06	HOSE DRAIN AS	3613227000	LDPE+EVA DWF-752MN	
D07	HOSE DRAIN AS	3613226900	LDPE+EVA DWF-800WNP	PUMP
D08	CLAMP	4507D08153	MFZN HOSE ID=7PIE	OPTION ; PUMP
D09	HOSE	4500D08210	ID=4.0	
D10	CLAMP	4507D08153	MFZN HOSE ID=7PIE	OPTION ; BUBBLE
D11	HOSE	4500D08210	ID=4.0	
D12	BASE	3610396400	EHI 1.6T	
D13	SPECIAL SCREW	3616007000	SCM24H 6.5X24	
D14	DTAIN MOTOR	361895875L	220-240V/5,60Hz	
		361895872L	100-127V/60Hz	
D15	GEAT MECHANISM	3617310511	GM-0600-KJ4P0	
D16	BOLT HEX	7341801511	6B-1 8X15 SW MFZN	
D17	PROTECTOR GEAR	3618346700	SGCC 1.2T	
D18	SPECIAL WASHER	4505E34030	PP	
D19	UNIT MOTOR AS	3618959901	100-127V/60Hz W1S30CC004	
		3618960220	220V/60Hz W1S30VC007	
		3618960210	220-240V/50Hz W1S30VC006	
D20	BOLT HEX	7650802528	6B-1 8X25 PW MFZN	
D21		3618401480	DP=48.5 60Hz PRESS	60Hz
D22	PULLEY MOTOR AS	3618401490	DP=53 50Hz PRESS	50Hz
D23	WASHER SPRING	7401008011	SW-8 MFZN	
D24	NUT HEX	7392800011	M8XP1.25 MFZN	
D25	BELT V	3616590210	M20	50Hz
D17		3616590200	M19.5	50Hz
B18	HARNESS EARTH INNER	3612757010	L=560	

Circuit Diagram



DAEWOO ELECTRONICS CORP.
1-2, Jeo-dong 1(il)-ga, Jung-gu, Seoul, Korea
C.P.O. BOX 8003 SEOUL, KOREA
TELEX: DWELEC K28177-8
CABLE: "DAEWOOELEC"

S/M NO. :

PRINTED DATE: Aug. 2013

ABOUT THIS MANUAL

VISION CREATIVE, INC.
서울 종로구 통의동
6번지 이룸빌딩 4층

담 당	조진수 님
MODEL	DWF-900S
	Service MANUAL
접 수	2013.08.06
MEMO	총 48p

13.08.06-표지, 표지뒤, 2p, 3p, 4p, 5p, 6p, 7p, 8p, 37p, 38p, 39p, 40p, 41p, 42p, 43p, 45p_ 신규 17p

연락처
VISION 담 당 방 문 수
TEL: 730-0660 FAX: 730-3788